Government
Publications

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Ontario. Legislature assembly.

Sessional papers.

SESSIONAL PAPERS.

VOL. XXXV.—PART IV.

FIRST SESSION, TENTH LEGISLATURE

OF THE

PROVINCE OF ONTARIO.

SESSION 1903.

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LIST OF SESSIONAL PAPERS.

ARRANGED ALPHABETICALLY.

TITLE.	No.	REMARKS.
Accounts, Public	1	*Printed.*
" and Awards (*Dom. and the Provinces*)	73	"
Agricultural College, Report	14	"
" and Experimental Union, Report	15	"
Archæology, Report, *part of*	12	"
Asylums, Report	38	"
Awards on Unsettled Accounts	73	"
Bee-Keepers' Association, Report	20	*Printed.*
Births, Marriages and Death, Report	9	"
Blind Institute, Report	41	"
Boys and Girls committed to Gaol	72	*Not printed.*
Bribery Charges, Commission, Report, etc	51	*Printed.*
Browning, James A., correspondence	81	*Not printed.*
Children, Neglected, Report	43	*Printed.*
Common Gaols, Prisons, etc., Report	39	"
Crown Lands, Report	3	"
Cyclone in Dundas County	52	*Not printed.*
Dairymens' Associations, Report	22	*Printed.*
Deaf and Dumb Institution, Report	42	"
Division Courts, Report	33	"
Education, Report of Minister	12	*Printed.*
" Orders-in-Council, Department of	56	*Not printed.*
" " Kingston University	57	"
" " Publication of School Books	58	"
" " "	59	"
" " Public Schools	60	*Printed.*
" " Publication of School Books	61	*Not printed.*
" " "	62	"
" " School Libraries	63	"
Elections, Return from Records	46	*Printed.*
Elzevir and Grimsthorpe, Timber in	67	*Not printed.*
Entomology, Report	19	*Printed.*
Estimates 1903	2	"
Factories, Report	8	*Printed.*
Fairs and Exhibitions, Report	26	"
Farmers' Institutes, Report	25	"
Fidelity Bonds, 1903	32	"

TITLE.	No.	REMARKS.
Fisheries, Report	31	*Printed.*
Fishing rights, or concessions, in Lake Nepigon	75	*Not printed.*
Frontenac, Sheriff of, correspondence	80	"
Fruit Experiment Stations, Report	17	*Printed.*
Fruit Growers' Association, Report	16	"
Fumigation Appliances, Report	18	"
Game Commission, Report	30	*Printed.*
Gamey Bribery Charges	51	"
Gaols, Prisons, etc., Report	39	"
" Commitment of Boys and Girls to	72	*Not printed.*
Hare, J F., commutation	53	*Not printed.*
Health Report	36	*Printed.*
Highway Commissioner, Report	27	"
Hospitals and Charities, Report	40	"
Imperial Institute, Canadian Section	54	*Not printed.*
Industries, Bureau of, Report	28	*Printed.*
Insurance, Report	10	"
Inter-Provincial Conference, proceedings	4	"
Judicature Act, Order-in-Council	53	*Not printed.*
Kingston University, Specialists Courses	57	*Not printed.*
Labour Bureau, Report	29	*Printed.*
Legal Offices, Report	34	"
Library, Report on state of	47	*Not printed.*
Liquor Act 1902, Referendum Vote	48	*Printed.*
Liquor Licenses, Report	44	"
Live Stock Associations, Report	23	"
Live Stock, Registrar of, Report	24	"
Loan Corporations, Report	11	"
McHugh, Judge, payment to	53	*Not printed.*
McMaster, John, appointment of	76	"
Mines, Report	5	*Printed.*
Mines Act, Annual Expenditure under	77	*Not printed.*
Nepigon and Manitou, Lakes, fishing in	75	*Not printed.*
Ontario Fairs, Report	8	*Printed.*
Ontario Historical Society, Report	68	*Not printed*
Provincial Municipal Auditor, Report	45	*Printed.*
Prisons and Reformatories, Report	39	"
Public Accounts, 1902	1	"
Public Works, Report	7	"
Pulp Agreements	66, 78, 79	"

Titles.	No.	Remarks.
Quebec Conference, proceedings	4	*Printed.*
Queen Victoria Niagara Falls Park, Report	6	"
Rainy Lake Pulp and Paper Company, Limited	66	*Printed.*
Referendum Vote, 1902	48	"
Registrar General, Report	9	"
Registry Offices, Report	35	"
Road-making, Report	27	"
San José Scale, Report	21	*Printed.*
Secretary and Registrar, Report	37	"
Sheriff of Frontenac, correspondence	80	*Not printed.*
Statute Distribution	64	"
Sturgeon Falls Pulp Co'y., L'td, Order-in-Council	78	*Printed.*
" Agreement	79	"
Succession Duties Act, Order-in-Council	55	*Not printed.*
Sugar Beet Experiments, Report	50	*Printed.*
Tavern and Shop Licenses, Report	44	*Printed.*
Temiskaming Northern Railway, Report	49	"
Timber cut in Elzevir and Grimsthorpe	67	*Not printed.*
Titles, Master of, Report	65	*Printed.*
" fees received by	70	*Not Printed.*
" certificates issued	71	"
Toronto, Niagara Power Company, correspondence	74	"
Toronto University, Reports	13	*Printed.*
" By-law *re* Faculty of Medicine	69	*Not printed.*

LIST OF SESSIONAL PAPERS.

Arranged in Numerical Order with their titles at full length; the dates when presented to the Legislature; the name of the Member who moved the same; and whether Ordered to be Printed or not.

CONTENTS PART I

No. 1.. Public Accounts of the Province for the year 1902. Presented to the Legislature, 21st March 1903

No. 2.. Estimates (*Vote of Credit*) for the year 1903. Presented to the Legislature, 11th March, 1903. *Not printed.* Estimates (*Vote of Credit*) for the year 1903. Presented to the Legislature, 31st March, 1903. *Not printed.* Estimates for the year 1903. Presented to the Legislature, 23rd April, 1903. *Printed.* Estimates (*Supplementary*) for the year 1903. Presented to the Legislature, 10th June, 1903. *Printed.*

No. 3.. Report of the Commissioner of Crown Lands for the year 1902. Presented to the Legislature, 23rd March, 1903. *Printed.*

No. 4.. Report of the Proceedings of the Inter-Provincial Conference held at the City of Quebec from the 18th to the 20th December, inclusive. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 5.. Report of the Bureau of Mines for the year 1902. Presented to the Legislature, 30th April, 1903. *Printed.*

CONTENTS PART II.

No. 6.. Report of the Commissioners for the Queen Victoria Niagara Falls Park for the year 1902. Presented to the Legislature. 5th May, 1903. *Printed.*

No. 7.. Report of the Commissioner of Public Works for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 8.. Report of the Inspectors of Factories for the year 1902. Presented to the Legislature, 3rd June, 1903. *Printed.*

No. 9.. Report relating to the Registration of Births, Marriages and Deaths for the year 1901. Presented to the Legislature, 21st March, 1903. *Printed*

CONTENTS PART III.

No. 10.. Report of the Inspector of Insurance and Registrar of Friendly Societies for the year 1902. Presented to the Legislature, 11th June, 1903. *Printed.*

No. 11.. Loan Corporations Statements for the year 1902. Presented to the Legislature, 19th May, 1903. *Printed.*

CONTENTS PART IV.

No. 12.. Report of the Minister of Education—Parts I. and II.—with Report on Archæology for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 13.. Auditor's Report to the Board of Trustees on Capital and Income Accounts, and Report of the President of the University of Toronto for the year 1902. Presented to the Legislature, 21st March and 8th May, 1903. *Printed.*

CONTENTS PART V.

No. 14.. Report of the Ontario Agricultural College and Experimental Farm for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 15.. Report of the Ontario Agricultural and Experimental Union for the year 1902. Presented to the Legislature, 2nd June, 1903. *Printed.*

No. 16.. Report of the Fruit Growers' Association of Ontario for the year 1902. Presented to the Legislature, 8th June, 1903. *Printed.*

No. 17.. Report of the Fruit Experiment Stations of Ontario for the year 1902. Presented to the Legislature, 26th May, 1903. *Printed.*

No. 18.. Report of the Inspector of Fumigation Appliances for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 19.. Report of the Entomological Society for the year 1902. Presented to the Legislature, 21st April, 1903. *Printed.*

No. 20. Report of the Bee-Keepers' Association of Ontario for the year 1902. Presented to the Legislature, 8th June, 1903. *Printed.*

No. 21.. Report of the Inspector of San José Scale for the year 1902. Presented to the Legislature, 23rd March, 1903. *Printed.*

CONTENTS PART VI

No. 22.. Reports of the Dairymen's Associations for the year 1902. Presented to the Legislature, 5th May, 1903. *Printed.*

No. 23.. Reports of the Live Stock Associations of Ontario for the year 1902. Presented to the Legislature, 8th June, 1903. *Printed.*

No. 24.. Report of the Registrar of Live Stock of Ontario for the year 1902. Presented to the Legislature, 8th June, 1903. *Printed.*

No. 25.. Report of the Farmer's Institutes of Ontario for the year 1902. Presented to the Legislature, 8th June, 1903. *Printed.*

No. 26.. Report of the Ontario Fairs and Exhibitions for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

CONTENTS PART VII

No. 27.. Report of the Commissioner of Highways for the year 1902. Presented to the Legislature, 11th June, 1903. *Printed.*

No. 28.. Report of the Bureau of Industries for the year 1902. Presented to the Legislature, 8th June, 1903. *Printed.*

No. 29.. Report of the Bureau of Labour for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 30.. Report of the Ontario Game Commission for the year 1902 Presented to the Legislature, 23rd March, 1903. *Printed.*

No. 31.. Report of the Department of Fisheries for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 32.. Report of the Treasurer *in re* Fidelity Bonds, 1903. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 33.. Report of the Inspector of Division Courts for the year 1902. Presented to the Legislature, 19th May, 1903. *Printed.*

No. 34.. Report of the Inspector of Legal Offices for the year 1902. Presented to the Legislature, 15th May, 1903. *Printed.*

No. 35.. Report of the Inspector of Registry Offices for the year 1902. Presented to the Legislature, 3rd June, 1903. *Printed.*

CONTENTS PART VIII.

No. 36.. Report of the Provincial Board of Health, of Ontario, for the year 1902. Presented to the Legislature, 8th June, 1903. *Printed.*

No. 37.. Report of the Secretary and Registrar of the Province for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 38.. Report upon the Lunatic and Idiot Asylums of the Province for the year ending 30th September, 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 39.. Report upon the Prisons and Reformatories of the Province for the year ending 30th September, 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 40.. Report upon the Hospitals and Charities of the Province for the year ending 30th September, 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 41.. Report upon the Ontario Institution for the Education of the Blind, Brantford, for the year ending 30th September, 1903. Presented to the Legislature, 21st March, 1902. *Printed.*

No. 42.. Report upon the Ontario Institution for the Education of the Deaf and Dumb, Belleville, for the year ending 30th September, 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

CONTENTS PART IX.

No. 43.. Report upon Neglected and Dependent Children for the year 1902. Presented to the Legislature, 23rd March, 1903. *Printed.*

No. 44.. Report upon the Inspection of Liquor Licenses for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 45.. Report of the Provincial Municipal Auditor for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 46.. Return from the Records of the General Elections to the Legislative Assembly on 29th May, 1902, shewing:—(1) The number of Votes polled for each Candidate in each Electoral District in which there was a contest. (2) The majority whereby each successful Candidate was returned. (3) The total number of Votes polled in each District. (4) The number of Votes remaining Unpolled. (5) The number of Names on the Voters' Lists in each District. (6) The Population of each District as shewn by the last Dominion Census. (7) Similar Statements as to any Elections held since the General Election. (8) A General Summary of Votes cast in each Electoral Division. Presented to the Legislature, 10th March, 1903. *Printed.*

No. 47.. Report of the Librarian on the state of the Library. Presented to the Legislature, 10th March, 1903. *Not Printed.*

No. 48.. Return from the Records on the vote for and against the adoption of the Liquor Act, 1902, shewing:—(1) The number of Polling Subdivisions. (2) The number of votes for and against the adoption of the Act. (3) The total number of Votes polled. (4) The number of votes remaining unpolled. (5) The number of names on the Voters' Lists. (6) The number of Ballot papers sent out to each sub-division. (7) The number of Ballot papers used. (8) The number unused. (9) The number of rejected and spoiled Ballots, and (10) The Population of each Electoral District. Presented to the Legislature, 10th March, 1903. *Printed.*

No. 49.. Report of the Temiskaming Northern Railway Commission for the year 1902. Presented to the Legislature, 21st March, 1903. *Printed.*

No. 50.. Report upon the Sugar Beet Experiments in Ontario for the year 1902. Presented to the Legislature, 12th May, 1903. *Printed.*

CONTENTS PART X.

No. 51.. Copy of Commission of Enquiry in the matter of certain charges made by Robert Roswell Gamey, a member of the Legislative Assembly, against James Robert Stratton, a Member of the Executive Council of Ontario, and also a Member of the Legislative

Assembly ; and the Report of the Royal Commission appointed, together with the Arguments of Counsel and Evidence taken before the Commission. Presented to the Legislature on the 18th March, and the 4th June, 1903. *Printed.*

No. 52.. Report into the loss and damage caused by the Cyclone which devastated a portion of the Province, in Dundas and Stormont during the year 1902. Presented to the Legislature, 25th March, 1903. *Not printed.*

No. 53.. Copies of Orders-in-Council under the provisions of the Judicature Act commuting fees J. F. Hare, Local Master in Essex, and authorizing certain payment to Judge McHugh, of Essex. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 54.. Report of the Commercial Work of the Canadian Section of the Imperial Institute, during the year 1902. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 55.. Copy of Order-in-Council with respect to Regulations under the Succession Duties Act. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 56. Copies of Orders in-Council *in re* recommendations of the Education Department. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 57.. Copy of Order-in-Council, respecting Specialist's Courses in the University of Kingston. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 58.. Copy of Order-in-Council as to agreement with the Canada Publishing Company, Limited ; the Copp, Clark Company, Limited, and the W. J. Gage Company, Limited, regarding the Public School Phonic Primer. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 59.. Copy of Order-in-Council as to agreement with the Hunter Rose Company, Limited, respecting High School Euclid. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 60.. Copy of Order-in-Council *in re* Regulations governing Public Schools. Presented to the Legislature, 21st, 1903. *Printed.*

No. 61.. Copy of Order-in-Council as to agreement, amending a certain agreement with the George N. Morang Company, Limited, respecting publication of a first book of Geography. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 62.. Copy of Order-in-Council as to agreements with the George N. Morang Company, Limited, respecting certain school books. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 63.. Copy of an Order-in-Council *in re* Regulations pertaining to School Libraries. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 64.. Statement as to the distribution of the Revised and Sessional Statutes, 1898-1902. Presented to the Legislature, 21st March, 1903. *Not printed.*

No. 65.. Report of the Master of Titles in respect to the working of the Land Titles system, in the Province, during the years 1900, 1901 and 1902. Presented to the Legislature, 23rd March, 1903. *Printed.*

No. 66.. Agreement between His Majesty, represented by the Commissioner of Crown Lands, and the Rainy Lake Pulp and Paper Company, Limited. Presented to the Legislature, 19th May, 1903. *Printed.*

No. 67.. Return to an Order of the House of the twenty-third day of April, 1903, for a Return showing account in detail of timber dues paid or owing to the Province in respect of timber cut upon Crown lands in the Townships of Elzevir and Grimsthorpe in the season of 1901-2. Also, shewing amount due to the said municipalities during same period. Presented to the Legislature, 30th March, 1903. Mr. *Pearce.* *Not printed.*

No. 68.. Report of the Ontario Historical Society, 1901, 1902. Presented to the Legislature, 1st May, 1904. *Not printed.*

No. 69.. By-law No. 16, under the University Act *in re* Faculty of Medicine as to expenditure of $50,000 towards completion of Building. Presented to the Legislature, 6th May, 1903. *Not printed.*

No. 70.. Statement of fees received by the Master of Titles during the years 1900, 1901 and 1902. Presented to the Legislature, 8th May, 1903. *Not printed.*

No. 71.. Return to an Order of the House of the twenty-fourth day of April, 1903, for a Return from the Office of the Master of Titles, shewing 1. Total number of Certificates issued. 2. Number of registrations for the past three years. 3. Fees received in all offices for the past three years. 4. Expenses. 5. Total amount received from the Guarantee Fund in the different offices during the past three years. 6. Total amount received from the Guarantee Fund since the same went into operation. 7. Losses and all other charges against the Guarantee Fund. 8. Total amount standing to the credit of the Guarantee Fund. Presented to the Legislature, 8th May, 1903. Mr. *St. John.* *Not printed.*

No. 72.. Return to an Order of the House of the fourth day of May, 1903, for a Return shewing the number of young Boys and Girls committed to the County Gaols of the Province during the years 1900, 1901 and 1902 respectively. Presented to the Legislature, 11th May, 1903. Mr. *Hoyle.* *Not printed.*

No. 73.. Return to an Address of the eighth day of May, 1903, to His Honour the Lieutenant-Governor praying that he will cause to be laid before this House a Return of copies of all Awards made by the Arbitrators between the Dominion and the Provinces, since the date of the last Return. Also, a statement of the Account between Ontario and the Dominion from 31st December, 1892, to 31st December, 1902, as settled by the Counsel for the Province and the Dominion. Together with copies of correspondence between the Minister of Finance of the Dominion and the Provincial Treasurer of Ontario. Presented to the Legislature, 14th May, 1903. Mr. *Matheson. Printed.*

No. 74.. Return to an Order of the House of the Eleventh day of May, 1903, for a Return of copies of all correspondence, agreements and other documents, relating to any application, or agreement between the Government and the Toronto and Niagara Power Company, or any other person, or persons, since the first day of January, 1902, for a grant, or proposed grant of water power from the Niagara or Welland Rivers, for the purpose of generating pneumatic, or other power. Presented to the Legislature, 21st May, 1903. Mr. *Foy. Not printed.*

No. 75.. Return to an Order of the House of the Twentieth day of May, 1903, for a Return of copies of all correspondence between the Department of Public Works, or any officer thereof, and any applicant or applicants, for fishing rights or fishing concessions for commercial purposes, in Lakes Nepigon, Manitou and other Lakes in Ontario, since the first day of May, 1902, together with copies of all agreements for fishing rights, or fishing concessions, since said date. Presented to the Legislature, 28th May, 1903. Mr. *Hendrie Not printed.*

No. 76.. Return to an Order of the House of the Twentieth day of May, 1903, for a Return of copies of all correspondence, papers and documents relating in any way to the appointment of one John McMaster, in or about the month of May, 1902, as overseer of work to be performed on Markstay and Warren Road in Algoma or Nipissing, and to the work done, security given and money advanced or expended in connection therewith. Presented to the Legislature, 28th May, 1903. Mr. *Nesbitt. Not printed.*

No. 77.. Return to an Order of the House of the twenty-seventh day of May, 1903, for a Return shewing the amount of money annually expended by the Province under the " Mines Act," for the encouragement of iron mining. The names of the persons, companies or firms to whom the money has been paid. The amount of iron ore annually mined and smelted in the Province ; shewing as well the amount of foreign ore annually smelted in the Province. Presented to the Legislature, 29th May, 1903. Mr. *Hoyle. Not printed.*

No. 78.. Copy of Order in Council approved by His Honour the Lieutenant Governor, on the eleventh day of June, 1902, respecting a certain

Agreement with the Sturgeon Falls Pulp Company, Limited. Presented to the Legislature, 1st June, 1903. *Printed.*

No. 79.. Copy of an Agreement bearing date of the seventh day of May, 1903, by and between the Sturgeon Falls Pulp Company, Limited, and the Imperial Paper Mills of Canada, Limited. Presented to the Legislature, 1st June, 1903. *Printed.*

No. 80.. Return to an Order of the House of the fourth day of June, 1903, for a Return of copies of all correspondence between the Attorney-General or any other Member of the Government and the County Council of Frontenac, with reference to a Resolution of the County Council asking for the dismissal of the Sheriff of the County; together with copies of all correspondence between the Government, or any Member thereof, and James Dunkin Thompson, Registrar of the County of Frontenac, and Thomas Dawson, Sheriff of the said County, as to the appointment of a Returning Officer for the County, at the last Provincial Election. Presented to the Legislature, 16th June, 1903. Mr. *Gallagher. Not printed.*

No. 81.. Return to an Order of the House of the twenty-eighth day of May, 1903, for a Return of Copies of all correspondence between any Member of the Government and James A. Browning of Bellingham, Ontario, relating to the imprisonment of the latter, on a charge of obtaining property on false pretences. Presented to the Legislature, 26th June, 1903. Mr. *Smyth. Not printed.*

REPORT

OF THE

MINISTER OF EDUCATION,

PROVINCE OF ONTARIO,

FOR THE YEAR 1902.

PART I.

(WITH THE STATISTICS OF 1901.)

PRINTED BY ORDER OF

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TABLE OF CONTENTS.

PART I.

PAGE.

STAFF OF DEPARTMENT ..... ii.

SUMMARY OF STATISTICS ..... iii.

I.—PUBLIC SCHOOLS.

1. School Population, Attendance ..... v.

2. Classification of Pupils ..... v.

Temperance and Hygiene, Kindergartens, Night Schools ..... vi.

3. Teachers' Certificates ..... vi.

and Salaries ..... vii.

4. Receipts and Expenditure ..... vii.

II.—ROMAN CATHOLIC SEPARATE SCHOOLS ..... vii.

III.—PROTESTANT SEPARATE SCHOOLS ..... viii.

IV.—COLLEGIATE INSTITUTES AND HIGH SCHOOLS.

1. Receipts, Expenditure, Attendance, etc ..... viii.

2. Classification, Matriculation, etc ..... viii.

Diffusion of H. S. Education, Occupation of Parents ..... ix.

V.—DEPARTMENTAL EXAMINATIONS, ETC ..... x.

VI.—TEACHERS' INSTITUTES ..... xi.

VII.—TECHNICAL EDUCATION—Public Libraries ..... xi.

Art Schools ..... xii.

Scientific Institutions, etc ..... xiii.

GENERAL REMARKS:

I.—JUNIOR LEAVING REQUIREMENTS ..... xiii.

II.—EXAMINATIONS ..... xiv.

III.—CONTINUATION CLASSES ..... xvi.

IV.—SCHOOL LIBRARIES ..... xvi.

V.—TRAVELLING LIBRARIES ..... xx.

VI.—CENTRALIZED RURAL SCHOOLS ..... xxii.

VII.—IMPROVED CONDITIONS FOR FARMERS ..... xxvii.

VIII.—MORAL TRAINING ..... xxviii.

IX.—NATURE STUDY ..... xxx.

X.—TECHNICAL EDUCATION AND MANUAL TRAINING ..... xxxv.

XI.—SOME EDUCATIONAL PROBLEMS OF A DEMOCRACY ..... xliii.

XII.—CONCLUSION ..... xlviii.

APPENDICES.

APPENDIX A.—STATISTICAL TABLES, 1901.

1. *Public Schools.*

I.—TABLE A.—School Population, Total and Average Attendance, etc 3

PAGE.

II.—TABLE B.—Reading Classes—Pupils in the various branches of instruction..... 6
III.—TABLE C.—Teachers, Salaries, Certificates, etc..... 12
IV.—TABLE D.—School Houses, Prayers, Maps, etc..... 14
V.—TABLE E.—Financial Statement, Cost per pupil..... 16

2. *Roman Catholic Separate Schools.*

I.—TABLE F.—Financial Statement, Teachers, etc..... 22
II.—TABLE G.—Attendance, Pupils in the various branches of instruction, Maps, etc. 26

3. *Collegiate Institutes and High Schools.*

I.—TABLE H.—Financial Statement, Charges per year, Cost per pupil..... 30
II.—TABLE I.—Attendance, Pupils in the various branches of instruction, and examination results..... 36
III.—TABLE K.—Miscellaneous, School Houses, Pupils in the different Forms, etc... 48

4. *Protestant Separate Schools.*

TABLE L.—Protestant Separate Schools..... 54

5. *Miscellaneous.*

TABLE M.—Report on Truancy..... 55
TABLE N.—Report on Kindergartens..... 56
TABLE O.—Report on Night Schools..... 56

6. *General Statistical Abstract.*

TABLE P.—General Statistical Abstract..... 57

APPENDIX B.—CONTINUATION CLASSES, 1901–2..... 58

APPENDIX C.—TEACHERS' INSTITUTES, FINANCIAL STATEMENT, 1901..... 66

APPENDIX D.—INSPECTION OF SCHOOLS, 1902.

I. List of Inspectors..... 68
II. Diplomas for School Premises..... 70

APPENDIX E.—PROCEEDINGS FOR THE YEAR 1902.

I.—CIRCULARS AND REGULATIONS..... 71
Apportionment of Public School Grant..... 88
II.—ORDERS IN COUNCIL..... 100
III.—MINUTES OF THE DEPARTMENT..... 101

APPENDIX F.—TECHNICAL EDUCATION—PUBLIC AND FREE LIBRARIES, ART SCHOOLS, LITERARY AND SCIENTIFIC INSTITUTIONS, 1901.

Report of S. P. May, M.D., C.L.H., Superintendent..... 101
Libraries in the Province..... 103
I.—*Public Libraries (not free)*..... 107
II.—*Public Libraries (free)*..... 115
III.—*Art Schools and Departmental Drawing Examinations*..... 122

Art Schools.

PAGE.

1. Extract from Report of Hamilton Art School 131
2. do Report of Kingston Art School 132
3. London Art School 132
4. Ottawa Art School 132
5. Extract from Report of St. Thomas Art School 132
6. do Report of Toronto Art School 132
7. do Report of Ontario Society of Artists 133
8. Provincial Art Gallery 133

Literary and Scientific Institutions.

1. Report of the Hamilton Scientific Association 133
2. do Ottawa Literary and Scientific Society 134
3. do L'Institut Canadien Francais d'Ottawa 134
4. do St. Patrick's Literary and Scientific Association, Ottawa 135
5. do Ottawa Field Naturalists' Club 135
6. do Ottawa University Scientific Society 136
7. do Toronto Astronomical Society 136
8. do Toronto Canadian Institute 136
9. do Historical Societies 137

APPENDIX G.—Report of J. George Hodgins, M.A., LL.D., Librarian and Historiographer.

I.—EDUCATION LIBRARY 137

II.—HISTORIOGRAPHY 142

III.—SCHOOL ROOM DECORATION, ETC 143

APPENDIX H.—ADMISSION OF CANDIDATES TO COLLEGIATE INSTITUTES AND HIGH SCHOOLS, 1902 144

Collegiate Institute, Manual Training and Domestic Science Buildings, Stratford.

Technical School, Toronto.

GENERAL REPORT, 1902.

EDUCATION DEPARTMENT.

MINISTER OF EDUCATION:

HON. RICHARD HARCOURT, M.A., K.C.

DEPUTY MINISTER OF EDUCATION:

JOHN. MILLAR, B A.

H. M. Wilkinson,	Senior Clerk and Accountant.
H. R. Alley,	Clerk and Minister's Secretary.
A. C. Paull,	Senior Clerk.
Thomas J. Greene,	Clerk.
E. A. Faulds,	"
Allen Ker,	"
T. F. Callaghan,	"
R. J. Bryce,	"
F. Woodley,	"
Miss E. H. Brown,	Stenographer.
L. McCorkindale,	Caretaker.

Deparimental Examinations.

William H. Jenkins, B.A.,	Registrar.
J. T. R. Stinson,	Senior Clerk.
F. N. Nudel,	Secretary to Board of Examiners.
W. W. Jeffers,	Clerk.
S. A. May,	"

Public Libraries, Art Schools, Etc.

S. P. May, M.D., C.L.H.,	Superintendent.
Wm. Lemon,	Clerk.

Library and Museum.

J. George Hodgins, LL.D.,	Librarian and Historiographer.
David Boyle,	Curator of Museum.
Miss J. M. Crooks,	Assistant Librarian.

REPORT

OF THE

MINISTER OF EDUCATION

FOR THE YEAR 1902.

PART I

WITH THE STATISTICS OF 1901.

To the Honorable Sir Oliver Mowat, K.C.M.G.,
Lieutenant-Governor of the Province of Ontario.

May it Please Your Honor:

I herewith present Part 1. of the Report of the Education Department for the year 1902, with the statistics for the year 1901.

SUMMARY OF STATISTICS.

*Elementary Schools.

Number of Public Schools		5,663
Increase for the year	8	
Number of Roman Catholic Separate Schools		372
Increase for the year	17	
Number of Protestant Separate Schools		7
Number of Kindergartens		118
Number of Teachers		251
Number of Night Schools		12
Number of Teachers		22

*The Curriculum of Elementary Schools embraces the following subjects: Reading, Writing, Arithmetic, Composition, Drawing, English Literature, Geography, Music, Grammar, History, Physiology and Temperance, Drill and Calisthenics, Bookkeeping, Algebra Geometry, Botany, Elementary Physics, Agriculture.

Amount expended for Public School Houses (sites and buildings)	$433,801
" " Public School teachers' salaries	$2,874,473
" " all other purposes	$1,020,408
Total amount expended on Public Schools	$4,328,682
Increase for the year	$100,150
Number of persons in the Province between the ages of 5 and 21	574,490
Decrease for the year	5,615
Number of registered pupils of all ages in the Public Schools during the year	414,619
Decrease for the year	5,478
Average attendance of pupils in the Public Schools during the year	235,084
Decrease for the year	2,222
Number of pupils in Roman Catholic Separate Schools	43,987
Increase for the year	1,590
Average attendance of pupils, Roman Catholic Separate Schools	26,926
Increase for the year	1,051
Number of pupils in Protestant Separate Schools	450
Increase for the year	34
Average attendance of pupils in Protestant Separate Schools	249
Increase for the year	9
Number of pupils attending Kindergartens	11,405
Increase for the year	171
Average attendance of pupils in Kindergartens	4,704
Increase for the year	65
Number of pupils attending Night Schools	800
Increase for the year	5
Average attendance of pupils at Night Schools	194
Increase for the year	29
Percentage of average attendance to total attendance in Public Schools	57
Number of persons employed as teachers in the Public Schools during the year: Men, 2,375; women, 6,301; total	8,676
Decrease: men, 164; increase: women, 174; total increase	10
Number of teachers who have attended a Normal School	4,427
Increase for the year	292
Average annual salary of male teachers in Public Schools	$421
Increase for the year	$17
Average annual salary of female teachers in Public Schools	$306
Increase for the year	$8

*Secondary Schools.

Number of High Schools (including 38 Collegiate Institutes)	131
Number of teachers in High Schools	579
Increase for the year	6
Number of pupils in High Schools	22,523
Increase for the year	800
Amount expended for High School teachers' salaries	$535,521
" " " houses (sites and buildings and repairs)	$37,728
Amount expended on all other High Schol purposes	$154,883
Total amount expended on High Schools	$728,132

* The Curriculum of Secondary Schools includes all the subjects required for matriculation into the University.

I.—PUBLIC SCHOOLS.

These tables (for purpose of comparison with previous years in which the R. C. Separate Schools were included with Public Schools) include R. C. Separate Schools. In the Statistical Tables, A, B, C, D, E, the Separate Schools are excluded.

1.—School Population—Attendance.

The School population of the Province, as ascertained by the assessors, is as follows:

Year.	School age.	School population.	Pupils registered under 5.	Pupils registered 5 to 21.	Pupils registered over 21.	Total number of registered pupils.	Average attendance	Percentage of average attendance to total number attending school.
1867	5—16	447,726	.....	*380,511	†21,132	401,643	163,974	41
1872	5—16	495,756	.....	*433,664	†20,998	454,662	188.701	42
1877	5—16	494,804	1,430	488,553	877	490,860	217,184	44
1882	5—16	483,817	1,352	469,751	409	471,512	214,176	45
1887	5—21	611,212	1,569	491,242	401	493,212	245,152	50
1892	5—21	595,238	1,636	483,643	391	485,670	253,830	52
1897	5—21	590,055	1,385	481,120	272	482,777	273,554	56
1900	5—21	580,105	1,111	461,258	125	462,494	263,181	57
1901	5—21	574,490	1,070	457,436	100	‡458,606	262,010	57

*5—16. † Other ages. ‡ In addition, there were 11,405 Kindergarten pupils and 800 Night School pupils

It can be shown from the above table that about 22 per cent. of the entire population are enrolled in our Schools. From the last report of the American Commissioner of Education a little over 20 per cent. of the entire population attend school.

2. Classification of Pupils.

Year.	1st Reader—Parts I and II.	2nd Reader.	3rd Reader.	4th Reader.	5th Reader.	Writing.	Arithmetic.	Drawing.	Geography.	History.	Music.	Grammar and Composition.	Temperance and Hygiene.
1867	79,365	98,184	83,211	68,896	71,987	231,734	241,501	5,450	272,173	61,787	47,618	147,412	.....
1872	160,828	100,245	96,481	67,440	29,668	322,688	327,218	57,582	327,139	109,639	110,083	282,156	.....
1877	153,630	108,678	135,824	72,871	19,857	396,006	402,248	153,036	375,951	116,865	168,942	226,977	.....
1882	165,834	106,229	117,352	71,740	10,357	398,401	419,557	176,432	280,517	150,989	158,694	209,184	33,926
1887	192,361	100,533	108,096	81,984	10,238	466,389	469,445	395,097	316,791	194 754	203,567	270,856	71,525
1892	187,947	96,074	99,345	88,934	13,370	465,516	470,813	435,239	334,947	253,956	220,941	294,331	171,594
1897	181,375	91,330	99,682	89,314	21,076	465,525	471,869	448,444	342,189	284,025	233,915	316,787	215,343
1900	177,614	88,838	94,069	84,507	17,468	453,930	455,718	436,078	326,464	272,414	255,327	298,633	199.229
1901	178,077	86,982	92,203	84,106	17,238	451,067	452,022	439,696	322,843	270,589	266,230	297,126	197,605

Temperance and Hygiene.

It is also worthy of notice that the number of pupils receiving instruction in Temperance and Hygiene has increased from 33,926, in 1882, to 197,605, in 1901. Having regard to the great importance of the knowledge of physiology and the injurious effects of alcoholic stimulants on the human system, provision was made by the statute in 1886 for placing this subject on the course of study for Public Schols. Instruction was also provided under departmental regulation for teachers-in-training at County Model Schools and Normal Schools, to be followed by an examination as an essential pre-requisite to their final recognition as duly qualified teachers. In 1893, this subject was made compulsory for entrance to High Schools and Collegiate Institutes, so that no pupil who pursues his studies as far as the 5th Form can fail to be reasonably well acquainted with the conditions on which his health and physical vigor depend, as well as with the dangerous tendency of stimulants and narcotics to produce weakness and disease.

Kindergartens.

The system of Kindergarten instruction, first introduced into Ontario in 1882, and subsequently made part of the School System of the Province, by the Public Schools Act of 1885, has met with encouraging success. A report of the pupils receiving instruction in this way was first made in 1892. The report showed that in the short space of ten years, 69 Kindergartens were established, with 160 teachers, attended by 6,375 children under six years of age. In 1901 the number of Kindergartens has increased to 118, with 251 teachers, attended by 11,405 pupils under seven years of age.

Night Schools.

The whole number of Night Schools in 1901 was 12, the number of teachers 22, and the number in attendance 800. This number does not include the attendance upon the classes established by Mechanics Institutes and Art Schools.

3.—Teachers' Certificates and Salaries.

Teachers' Certificates.

Year.	Public school teachers.	Male.	Female.	1st class.	2nd class.	3rd class.	Other certificates, including old County Board, etc.	Number of teachers who attended Normal Schools.
1867	4,890	2,849	2,041	1,899	2,454	386	151	666
1872	5,476	2,626	2,850	1,337	1,477	2,084	578	828
1877	6,468	3,020	3,448	250	1,304	3,926	988	1,084
1882	6,857	3,062	3,795	246	2,169	3,471	971	1,873
1887	7,594	2,718	4,876	252	2,553	3,865	924	2,434
1892	8,480	2,770	5,710	261	3,047	4,299	873	3,038
1897	9,128	2,784	6,344	343	3,386	4,465	934	3,643
1900	9,440	2,630	6,810	581	3,851	3,927	1,081	4,175
1901	9,494	2,459	7,035	611	4,125	3,571	1,187	4,572

*Teachers' Salaries.

Year.	Highest salary paid.	Average salary, male teacher, province.	Average salary, female teacher, province.	Average salary, male teacher, counties.	Average salary, female teacher, counties.	Average salary, male teacher, cities.	Average salary, female teacher, cities.	Average salary, male teacher, towns.	Average salary, female teacher, towns.
	$	$	$	$	$	$	$	$	$
1867	1,350	346	226	261	189	532	243	464	240
1872	1,000	360	228	305	213	628	245	507	216
1877	1,100	398	264	379	251	735	307	583	269
1882	1,100	415	269	385	248	742	331	576	273
1887	1,450	425	292	398	271	832	382	619	289
1892	1,500	421	297	383	269	894	402	648	298
1897	1,500	391	294	347	254	892	425	621	306
1900	1 500	404	298	349	255	892	455	624	309
1901	1,500	421	306	339	262	915	470	649	315

*There is a considerable increase in the salaries of Public School teachers although the average is still low. In Ontario the average is $421 for males and $306 for females. For the other provinces the averages are as follows: Nova Scotia, $399 and $281; New Brunswick, $354 and $233; P.E.I., $282 and $201; Quebec, $578 and $134; Manitoba, $449 for both male and female teachers. In the United States the average for males and females are $465 and $389 respectively.

4.—Receipts and Expenditure.

Year.	Receipts.				Expenditure.					
	Legislative grants.	Municipal school grants and assessments.	Clergy Reserve funds, balances and other sources.	Total receipts.	Teachers' salaries.	Sites and building school houses.	Maps, apparatus, prizes, etc.	Rent, repairs, fuel and other expenses.	Total expenditure.	Cost per pupil.
	$	$	$	$	$	$	$	$	$	$ c.
1867	187,153	1,151,583	331,599	1,670,335	1,093,517	149,195	31,354	199,123	1,473,189	3 67
1872	225,318	1,763,492	541,460	2,530,270	1,371,594	456,043	47,799	331,928	2,207,364	4 85
1877	251,962	2,422,432	730,687	3,405,081	2,038,099	477,393	47,539	510,458	3,073,489	6 26
1882	265,738	2,447,214	757,038	3,469,990	2,144,449	341,918	15,583	525,025	3,026,975	6 42
1887	268,722	3,084,352	978,283	4,331,357	2,458,540	544,520	27,509	711,535	3,742,104	7 59
1892	283,791	3,300,512	1,227,596	4,811,899	2,752,629	427,321	40,003	833,965	4,053,918	8 40
1897	366,538	3,361,562	1,260,055	4,988,155	2,886,061	391,680	60,585	887,335	4,215,670	8 73
1900	369,901	3 847,646	1,292,441	5,509,988	2,985,278	438,374	71,994	1,091,437	4,587,083	9 92
1901	377,308	3,784,070	1,468,678	5,630,056	3,055,321	531,072	81,685	1,052,232	4,720,310	10 29

II.—ROMAN CATHOLIC SEPARATE SCHOOLS.

Year.	Schools—Expenditure—Teachers.				Number of pupils attending—Number in the various branches of instruction.							
	Schools open.	Total receipts.	Total expenditure.	Teachers.	Pupils.	Reading.	Writing.	Arithmetic.	Geography.	Grammar.	Drawing.	Temperance and Hygiene.
		$	$									
1867	161	48,628	42,719	210	18,924	18,924	10,749	10,559	8,666	5,688	.....	.....
1872	171	68,810	61,817	254	21,406	21,406	13,699	12,189	8,011	7,908	.....	.....
1877	185	120,266	114,806	334	24,952	24,952	17,932	17,961	13,154	11,174	.....	.....
1882	190	166,739	154,340	390	26,148	26,148	21,052	21,524	13,900	11,695	7,548	2,033
1887	229	229,848	211,223	491	30,373	30,373	27,824	28,501	19,608	18,678	21,818	8,578
1892	312	326,034	289,838	662	37,466	37,466	35,565	35,936	26,299	22,755	32,682	11,056
1897	340	335,324	302,169	752	41,620	41,620	39,724	40,165	27,471	26,071	36,462	18,127
1900	355	396,137	358,551	774	42,397	42,397	42,397	42,397	27,923	25,955	34,201	12,549
1901	372	436,721	391,628	818	43,987	43,987	43,987	43,987	27,454	25,211	40,646	13,505

III.—PROTESTANT SEPARATE SCHOOLS.

The complete list of Protestant Separate Schools is as follows:

No. 5 Bromley, No. 9 Cambridge, No. 6 Plantagenet North, Rama, No. 1 N. Tilbury, L'Orignal, Penetanguishene.

They were attended by 450 pupils. The whole amount expended for their maintenance was $4,545. Six teachers held a Second Class, three a Third Class, and one a Temporary Certificate.

IV. COLLEGIATE INSTITUTES AND HIGH SCHOOLS.

The following statistics respecting Collegiate Institutes and High Schools will be found suggestive:

1.—Receipts, Expenditure, Attendance, Etc.

Year.	Schools open.	Teachers.	Receipts.			Expenditure.			Pupils.	Percentage of average attendance to total attendance.	Cost per pupil.
			Amount of fees.	Legislative grant.	Total receipts.	Paid for teachers' salaries.	Paid for sites and building school houses, rents and repairs.	Total expenditure.			
			$	$	$	$	$	$			$ c.
1867	103	159	15,605	54,562	139,579	94,820	19,190	124,181	5,696	55	21 80
1872	104	239	20,270	79,543	223,269	141,812	31,360	210,005	7,968	56	26 36
1877	104	280	20,753	78,762	357,521	211,607	51,417	343,710	9,229	56	37 24
1882	104	332	29,270	84,304	373,150	253,864	19,361	343,720	12,348	53	27 56
1887	112	398	56,198	91,977	529,323	327,452	73,061	495,612	17,459	59	28 38
1892	128	522	97,273	100,000	793,812	472,029	91,108	696,114	22,837	60	30 48
1897	130	579	110,859	101,250	767,487	532,837	46,627	715,976	24,396	61	29 35
1900	131	573	98,726	103,200	772,332	529,245	32,400	718,602	21,723	60	33 08
1901	131	579	99,864	109,200	784,626	535,521	37,728	728,132	22,523	59	32 33

2.—Classification, Etc.

Year.	English.					Mathematics.				Science.		
	English Grammar and Rhetoric.	English Composition.	Poetical Literature.	History.	Geography.	Arithmetic and Mensuration.	Algebra.	Geometry.	Trigonometry.	Physics.	Chemistry.	Botany.
1867	5,467	4,091	.....	4,634	5,264	5,526	2,841	1,847	141	1,876	840	.....
1872	7,884	7,278	.....	7,513	7,715	7,834	6,033	2,592	174	1,921	1,151	.....
1877	8,819	8,772	.....	9,106	9,158	9,227	8,678	8,113	359	2,168	2,547	.....
1882	12,275	12,189	.....	12,220	12,106	12,261	11,742	11,148	397	2,880	2,522	.....
1887	17,086	17,171	16,649	17,010	16,962	16,939	16,904	14,839	1,017	5,265	3,411	4,640
1892	22,530	22,525	22,468	22,328	22,118	21,869	22,229	17,791	1,154	6,601	3,710	6,189
1897	19,591	24,195	24,176	18,318	13,747	19,798	24,105	16,788	1,652	11,002	5,489	12,892
1900	17,122	21,382	21,146	21,652	12,410	17,008	20,567	15,609	1,325	10,265	5,723	8,626
1901	19,401	22,126	21,988	22,086	13,790	19,471	21,413	15,992	1,567	11,735	5,461	8,256

2. Classification, etc.—*Continued.*

Year.	Languages.				Drawing.	Vocal music.	Bookkeeping and commercial transactions.	Left for mercantile life.	Left for agriculture.	Who joined a learned profession.	Matriculated.	Number of schools charging fees.
	Latin.	Greek.	French.	German.								
1867.....	5,171	802	2,164	.....	676	.....	1,283	.....	.....	.....	56	57
1872.....	3,860	900	2,828	341	2,176	.....	3,127	486	300	213	78	28
1877.....	4,955	871	3,091	442	2,755	.....	3,621	555	328	564	145	35
1882.....	4,591	815	5,363	962	3,441	.....	5,642	881	646	751	272	37
1887.....	5,409	997	6,180	1,350	14,295	1,955	14,064	1,141	882	791	305	58
1892.....	9,006	1,070	10,398	2,796	16,980	948	16,700	1,111	1,006	398	471	77
1897.....	16,873	1,421	13,761	5,169	12,252	160	11,647	1,368	1,153	409	652	87
1900.....	18,073	853	12,650	3,894	9,345	357	9,712	1,331	757	716	1,253	91
1901.....	19,029	672	13,024	3,065	9,720	248	10,051	1,300	833	650	1,130	85

From a study of these tables, interesting views will be gathered regarding the progress and present condition of our High Schools and Collegiate Institutes. Owing to the organization of Continuation Classes in Public Schools, there has not been much increase of late years in the establishment of additional High Schools. As Continuation Classes are really doing High School work, it may be seen that there is a steady progress in the support given to secondary education. In 1867 only 1,283 pupils, or 23 per cent. of the whole number, studied commercial subjects, such as Bookkeeping. In 1901 this subject was taken up by 10,051 pupils, or 45 per cent. of the total attendance. In 1867, 5,171 pupils, or 90 per cent. studied Latin. In 1901 the number taking Latin was 18,710, or 83 per cent. In 1867, 15 per cent. studied Greek, while in 1901 only 3 per cent. were engaged in studying this subject. In 1867, 38 per cent. of pupils studied French, and none studied German. In 1901 the number taking French had increased to 57 per cent., while 14 per cent. were engaged in studying German. The greater attention given to Drawing is also a marked feature of the classification.

When High Schools were first established in the Province, their primary object was to prepare pupils for the learned professions, and especially for the University. Although their original purpose has not been ignored, the course of study has been enlarged so as to meet the aims of pupils who intend to follow the ordinary pursuits of life. It is in the High Schools that most students who desire to become Public School teachers receive their non-professional training. This is a valuable function of those institutions and one that has done much to commend them to the general public. Many young men also who intend to follow mechanical pursuits, or prepare themselves for mercantile life or for agriculture, take advantage of the High Schools. The superior culture which is thus received, proves a valuable investment. In 1872 the number of High School pupils entering mercantile life was 486. In 1901 the number had increased to 1,300. In 1872, 300 pupils left the High Schools for agricultural pursuits, and the number in 1901 had reached 833.

The following table will be of interest regarding the occupation of parents of High School pupils, and will show the classes of our population receiving most advantages from those institutions.

Agricultural.....	6,747
Commercial.....	5,984

Mechanical	5,862
Professional	2,144
Without occupation	1,786

V. DEPARTMENTAL EXAMINATIONS, ETC.

1. Table Showing the Number of Teachers-in-Training at County Model Schools, Normal College, Provincial Normal Schools, Etc., 1877-1901.

Year.	County Model Schools.			Normal College.			Normal and Model Schools, etc.					
	No. of schools.	No. of teachers in training.	No. that passed final examination.	No. teachers.	No. of students.	Receipts from fees of Normal College.	No. of Normal School teachers.	No. of Normal School students.	No. of Model School and Kindergarten teachers.	No. of Model School and Kindergarten pupils.	Receipts from fees of Normal Schools, Model Schools and Kindergarten pupils.	Expenditure, Normal and Model Schools.
						$ c.					$ c.	$ c.
1877 ..	50	1,146	1,124	.....	....	.....	13	257	8	643	7,909 22	25,780 88
1882 ...	46	882	837	.....	....	.....	16	260	15	799	13,783 50	44,888 02
1887 ...	55	1,491	1,376	.....	.....	.....	13	441	18	763	16,427 00	40,188 66
1892	59	1,283	1,225	10	96	1,630 00	12	428	22	842	19,016 00	45,724 12
1897	60	1,645	1,384	12	180	4,374 00	13	407	23	832	18,797 59	46,390 91
1900 ..	55	1,015	1,004	12	144	1,730 00	16	637	26	893	19,416 00	56,556 99
1901	55	1,189	1,145	14	113	1,905 00	14	613	28	921	19,264 00	57,728 51

2. Entrance Examinations, 1877-1902.

Year.	No. of candidates examined.	No. of candidates who passed.
1877	7,383	3,836
1882	9,607	4,371
1887	16,248	9,364
1892	16,409	8,427
1897	16,384	10,502
1901	17,149	12,229
1902	18,087	13,300

3. Non-Professional and Matriculation Examinations, 1902.

	High School Entrance.	Part I, Junior Leaving or Public School Leaving.	Part II, Junior Leaving.	Part I, Junior Matriculation.	Part II, Junior Matriculation.	Part I, Senior Leaving or Honor Matriculation.	Part II, Senior Leaving or Honor Matriculation.	Commercial Diploma, Part II.	Commercial Specialist.
No. of candidates	18,087	5,683	2,602	1,659	1,129	448	414	195	15
No. who passed	13,300	3,042	1,598	1,348	549	255	204	133	5
No. of appeals	....	47	190	9	40	54	35	1	1
Appeals sustained	....	8	28	4	5	32	5	....	....

VI. TEACHERS' INSTITUTES.

This table presents the work of the Teachers' Institutes for twenty-five years:

Year.	No of Teachers' Institutes.	No. of Members.	No. of teachers in the Province.	Receipts.				Expenditure.	
				Amount received from Government grants.	Amount received from municipal grants.	Amount received from members' fees.	Total amount received.	Amount paid for libraries.	Total amount paid.
				$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1877..... ..	42	1,181	6,468	1,412 50	100 00	299 75	2,769 44	... ...	1,127 63
1882.....	62	4,395	6,857	2,900 00	300 00	1,088 84	9,394 28	453 02	5,355 33
1887.....	66	6,781	7,594	1,800 00	1,879 45	730 66	10,405 95	1,234 08	4,975 50
1892..... ..	69	8,142	8,480	1,950 00	2,105 00	875 76	12,043 54	1,472 41	6,127 46
1897.....	73	7,627	9,128	2,425 00	2,017 45	901 15	12,446 20	1,479 88	6,598 84
1900.....	76	8,081	9,440	2,475 00	1,767 50	966 95	12,431 62	1,177 12	6,485 10
1901.....	78	8,372	9,494	2,525 00	1,895 00	1,110 50	13,898 79	1,404 42	7,665 12

The County teachers' associations are doing excellent work and at a trifling expenditure. In the United States it is not unusual for Teachers' Institutes to be held for a week or longer. The work attempted is, however, somewhat like what is done in our County Model Schools.

VII. TECHNICAL EDUCATION.—PUBLIC LIBRARIES, ART SCHOOLS, SCIENTIFIC INSTITUTIONS, ETC.

The change in the Act and Regulations requiring Annual Reports from Public Libraries to be made out to the end of each calendar year, has been complied with, and proved to be very satisfactory. The present Report is from the 1st of January, to the 31st of December, 1901.

The following abstracts are from the Superintendent's Report:

1. Public Libraries.

Abstract showing the Counties and Districts in which Public Libraries are established:—Addington (6), Algoma (13), Brant (7), Bruce (24), Carleton (10), Dufferin (10), Dundas (10), Durham (4), Elgin (12), Essex (8), Frontenac (6), Glengarry (2), Grenville (12), Grey (19), Haliburton (2), Haldimand (11), Halton (5), Hastings (8), Huron (18), Kent (13), Lambton (16), Lanark (9), Leeds (6), Lennox (2), Lincoln (9), Manitoulin Island (3), Middlesex (13), Muskoka (6), Nipissing (5), Norfolk (6), Northumberland (8), Ontario (12), Oxford (14), Parry Sound (11), Peel (14), Perth (8), Peterborough (5), Prescott (1), Prince Edward (2), Rainy River (2), Renfrew (10), Russell (2), Stormont (10), Simcoe (19), Victoria (12), Waterloo (14), Welland (9), Wellington (17), Wentworth (10), York (22).

Abstract showing the Progress of Public Libraries from 1883 to 31st December, 1901.

Year.	Institutions reporting.	Number of members.	Number of evening classes.	Number of pupils.	Number of reading rooms.	Number of newspapers and periodicals.	Number of volumes in libraries.	Number of volumes issued.	Total receipts.	Total assets.
									$ c.	$ c.
1883 (April)	93	13,672	28	1,758	59	1,540	154,093	251,920	59,716 00	225,190 00
1888 "	167	32,016	41	1,102	104	3,041	311,048	744 466	103,843 68	403,573 75
1893 "	255	84,088	41	1,117	156	4,745	510,326	1,415,867	160,556 26	685,412 17
1898 "	347	111,208	2	79	200	5,834	789,082	2,358,140	188,783 21	870,167 54
1899 "	364	121,397	2	35	200	5,839	862,047	2,547,131	193,421 20	935,975 81
1899 (December) ...	371	129,713	2	47	188	5,773	918,022	2,042,904	178,642 87	966,667 38
1900 " ...	389	147,208	2	35	186	5,971	989,050	2,534,711	210,635 49	1,024,300 14
1901 " ...	415	155,361	1	19	194	6,062	1,066,117	2,668,364	225,796 29	1,080,601 71

415 Public Libraries (132 Free, 283 not Free) reported for the year ending 31st December, 1901.

27 Public Libraries did not report for the year ending 31st December, 1901.

35 Libraries, which have not yet reported, were established in the year 1902.

There has been a large increase in the number of Libraries since the last Annual Report (1900). At the present time, as shown in the Superintendent's Report, 415 Libraries reported, 27 Libraries did not report, and 35 new Libraries have been incorporated.

Total number of Libraries, 477.

2. Art Schools, Etc.

The following abstract shows the number of certificates and medals awarded to Art Schools, Ladies' Colleges, Public and High Schools, etc., for drawing, painting, etc., at intervals since 1883:

Year.	Number of Art Schools, etc	Primary Art Course.		Advanced Art Course.		Mechanical Art Course.		Industrial Art Course.	Extra subjects.	Departmental medals, etc.			
		Proficiency certificates	Full teachers' certificates.	Proficiency certificates.	Full teachers' certificates.	Proficiency certificates.	Full teachers' certificates	Proficiency certificates.	Painting, etc.	Gold medals.	Silver medals.	Bronze medals.	Special certificates.
1883	1	124	..	31	.....	1	.....	.....	..	....	..	....	.....
1888	57	2,979	133	151	9	50	2	24	108	1	1	4	1
1893	85	4,753	220	301	13	139	10	11	165	1	16	11	21
1898	55	3,166	149	540	18	42	.....	30	171	1	2	11	14
1899	62	3,993	160	499	22	75	.....	42	154	1	3	10	14
1900	47	3,130	130	367	17	53	... ..	43	156	1	3	13	17
1901.....	57	2,548	29	413	13	70	1	31	142	1	4	13	18
1902.....	65	1,974	41	280	10	57	.....	31	151	..	.....		...

The departmental medals were discontinued in 1902.

3. Literary and Scientific Institutions.

These Institutions are doing good work. (See Superintendent's Report.) They have Libraries of Books relating to Arts and Sciences, History, etc., and several of these Institutions have Museums, which are frequently thrown open Free to the public. They give popular lectures on Science and Art, History, Literature, etc., and publish their Annual Transactions. Their chief aim is to encourage higher education among the masses, and the amount of patronage they receive is a proof that their efforts are appreciated.

GENERAL REMARKS.

I.—Junior Leaving Requirements.

The amendments to the Regulations in 1902, as given in Circular 50, assert some very important principles respecting the requirements for Second Class teachers. For many years the courses for teachers have been marked by much specialization and the privilege of several options which may be regarded as results of the Intermediate Examinations of 1876. It is no reflection on educationists to say that the experience of a quarter of a century has made us wiser than we were. The growth of specialization has been a marked feature of the last fifty years. It has shown its effect not only in the shop and factory, but in the school. Unfortunately, it has reached down too far in matters of education, and the value of a broad and general course of study has not been fully recognized. Specialization at too early an age tends to dwarf those humanizing processes which develop true manhood.

The amendments to the Regulations, and especially what they foreshadow, recognize that the interests of the child should have first consideration. It is not what may be most conducive to University interests, or what will allow the principle of electives to dominate our High Schools, but what will most contribute to that training which every boy and girl in our Public Schools should secure. I regret to say that although 9,494 teachers are employed in our Public Schools, only 611 hold First-Class certificates. Under these circumstances, what concerns Public School pupils chiefly is the academic and professional equipment which an ordinary Second Class teacher possesses. It is only a common-place statement to say that a teacher must know the subjects which he is called upon to teach. A knowledge of the three Rs, as generally understood, inadequately fits a child for modern conditions. Reading will be very limited in its use if it does not secure a taste for choice literature and a love for good books. A teacher of arithmetic must be acquainted with, at least, algebra and geometry. Writing, including book-keeping, will always be important, but drawing, at least of an elementary character, can no longer be overlooked. In the vast field of nature, the teacher who has not a fair acquaintance with the leading sub-departments of science, such as chemistry, physics and botany, will be placed at a serious disadvantage. Indeed, any curriculum of our Public Schools which fails to make children acquainted with the materials they handle, the forces they are to employ, or the objects they are to create, is, in the language of leading educationists, "seriously defective."

The settlement of the general character of the Public School curriculum—concerning which there is practically few differences of opinion—opens the way to the settlement of what should constitute the non-professional

attainments of the Second Class teacher. He should know all the essential subjects, and if possible subjects which if not essential will fit him the better for teaching subjects of the Public School course. I am sorry to say the academic attainments of Second Class teachers are not as high as would be desirable. Public School Inspectors, Principals of County Model Schools, and the Principals of the three Normal Schools are, I believe, unanimous in their judgment respecting the inadequacy of the attainments now guaranteed by Junior Leaving Standing. The defects are not due to any narrowness of the curriculum, but to the lack of thoroughness in such subjects as arithmetic, English, and elementary science. In preparation for his Junior Leaving certificate, the ordinary candidate in our High Schools has been obliged to give so much time to non-essential subjects (I do not deny their value), that he passed the examination often by making little over the 33 1-3 per cent. in such important subjects as grammar, arithmetic, history, literature, composition, etc. What is needed, I venture to say, is a higher standard in the essential subjects, say 60 per cent., and that the candidate should be relieved of any examination in Latin, Greek, French or German, valuable as undoubtedly they are for educational purposes. What we need, especially, is thoroughness, and experience shows that thoroughness cannot be secured apart from the plan here described.

If, in addition to the essential subjects, Second Class teachers had also a knowledge of Latin, it would doubtless be desirable; but experience shows that it would be impossible to exact a knowledge of Latin without allowing serious defects in what should be required of every Public School teacher. For First Class teachers that training which Latin gives cannot be ignored. The changes indicated do not affect the courses prescribed for University matriculation. Doubtless the Second Class teacher who intends eventually to matriculate will take up Latin in addition along with the requirements for Junior Leaving. It could never be defended, however, if on account of the few who go to the University the vast majority of our Second Class teachers should be obliged to take any course than that which will make them best fitted to teach the subjects prescribed for our Public Schools. No intelligent person can have much sympathy with those who ignore the value of our Universities. Our Universities, however, will gain in usefulness, as well as popularity, when it is clearly understood that University forces are not antagonistic to the claims of the masses of the people; indeed, what has increased the popularity of our Universities, and also of our High Schools, has been the growing belief that wherever there is a clash between the interests of the Universities and those of the High Schools, the former must give way. In like manner the claims of the Public Schools must be paramount when the question arises regarding the respective interests of elementary and secondary education. At the same time it should be clearly understood that there can be no antagonistic interests. The country cannot have too many educated persons. Assuming that the best training is given, the Province is in no danger of having too many University graduates, or too many pupils attending our High Schools preparing for matriculation. When the claims of the great body of our students are intelligently recognized, even although there may continue differences of opinion respecting the relative values of branches of study, the thoughtless statement of there being "too many educated persons" will have little force.

II.—Examinations.

For many years written examinations have formed an ever recurring subject of discussion, not only in this Province but wherever modern educa-

tional methods have received attention. I venture to say the principle underlying the question, as now recognized by the Department, will do much towards disposing of what has so often become a vexed topic. Let it at once be conceded that examinations have their value, and the assumption that they are a necessary evil cannot be maintained. To be brief, examinations must be conducted (1) by the Education Department, (2) by the Inspector or Principal, and (3) by the teacher. The matter may be settled more readily if the function of each is properly recognized, and no policy adopted which will in any way infringe upon the purposes of each authority which conducts the examination.

The Education Department should conduct only those examinations required for teachers' certificates. (The present arrangement regarding matriculation is for convenience and does not affect the principles mentioned) Many of the objectionable features which have arisen have been the result of an effort to hold examinations for purposes other than those in which the Department has a direct interest. If the Inspector is guided in his estimate of the work done by the teachers in his inspectorate by departmental examinations, his own office is degraded and the advantages of inspection are necessarily minimized. Indeed, in England where examinations have taken a more objectionable phase than in Ontario, it is frequently stated that good inspection is secured in proportion as less importance is attached to written examinations. It seems out of place for one central authority to issue examination papers in order to test the value of work with which the Inspector is familiar.

The Public School Leaving examination, now abolished, originated with the impression that eventually it might take the place of the High School Entrance examination. The growth of Continuation Classes has fully shown that the centralization of secondary school work in a few schools in the county is both impracticable and undesirable. Under the circumstances, there should be no more necessity for the Education Department holding an examination to test the character of Fifth Form work done in Public Schools than for holding a like examination for pupils in the First Form of a High School. Any examination conducted by the Department for purposes of promotion is out of place under present circumstances. It is not here, however, contended that the Public School Inspector may not find it desirable in some localities—though perhaps not in all parts of the Province—to hold with the concurrence of the County Council any examinations either for Fifth Form pupils or those of other classes which may be of service in enabling him the better to test the character of the work done in the schools under his supervision. This may be done under existing regulations, and as a fact is not infrequently done. This is a matter, however, that should not be controlled by the Education Department, but left to the judgment of the Inspector concerned.

No good teacher can afford to ignore examinations. Good teaching calls for such tests as will show to the teacher himself the efficiency or defects of his own work. It goes without saying that such tests will not be entirely oral. Written examinations, therefore, will form a recognized part of the work of the school. The examination questions will be set by the teacher, and he alone should examine the answer papers. The character of the questions, the time they are submitted to the pupils, and the subjects in which such written tests are held, are all matters involving pedagogical proof, which it is unnecessary here to discuss. Examinations of this kind in no respect interfere with those which may be held by the Principal of the school or the Inspector. If the functions of the Education Department, the Inspector, and the teacher are respectively recognized, and

the purposes of each kept distinct from those of the others, we may hope in future to hear less about the pressure of examinations. The freedom of the teacher will be secured, and the Inspector will attach more and more importance to the personality of the teacher and the formation of character going on in the school-room.

III.—Continuation Classes.

In the reports of previous years I took the opportunity of pointing out the growth of our Continuation Classes. Several years ago the question of the relations between the High and Public Schools presented difficulties which have now disappeared. It was held by some persons that High Schools should be established only in large centres of population, and the establishment of small High Schools was often condemned. The feeling at present is in favor of schools for secondary education wherever the locality is willing to support them. In keeping with this opinion, Continuation Classes have been established in nearly every village having a graded school where there is no High School. The course for Continuation Classes, it will be remembered, is identical with that for the lower forms of High Schools. The advantages of enabling children to board at home are apparent, and the maintenance of Continuation Classes, or small High Schools may be regarded as a settled policy for the Province. It may be mentioned, in passing, that the policy of Ontario in this respect is almost identical with that which prevails in the eastern and western states of the American Union.

In 1902 the total number of Continuation Classes receiving legislative aid was 540; of these, 59 were in grade (a); 49 in grade (b); 149 in grade (c); and 283 in grade (d). The total number of pupils enrolled was 4,933, and the number of teachers employed in Continuation Class work, 554. In order that a school may be ranked in grade (a), it is necessary that the Principal should give his entire time to pupils doing Fifth Form or higher work. In grade (b), there must be two teachers and a class in regular attendance of, at least, ten pupils who have passed the High School Entrance examination. In grade (c), there must be at least five pupils, and in grade (d) at least three pupils who have passed the High School Entrance examination. For each school in grade (a) a grant of $100 was paid from the legislative appropriation and double that amount if there were two teachers engaged in Continuation work. In one school—Chesley—where there were three teachers engaged in Continuation work, the sum of $300 was paid. These appropriations require the County Council to give an equivalent. The equivalent in all cases, I believe, has been cheerfully given, and in some places the County Councils, to their credit be it said, have gone beyond the minimum requirements. It is very satisfactory to notice from the table, that the trustees of Continuation Classes are anxious to employ teachers of high qualifications. In 1902 twenty-six teachers holding Degrees in Arts from the Universities (they must be also graduates from the Normal College) were employed; 108 held First Class certificates, and 306 Second Class certificates. It is safe to say that the Continuation Classes are doing an admirable work. The relations between Continuation Classes and High Schools are upon the whole cordial. With the question of departmental examinations placed on a rational basis, the continued progress of the Continuation Classes is assured.

IV.—School Libraries.

During the year 1902 a catalogue, containing lists of books specially suited for children, and regulations and instructions regarding Public School Libraries, was published.

Regulations.

1. The Minister of Education may prepare a catalogue of books recommended for school libraries, the list to include mainly works suitable for children, in such departments as biography, history, geography, travel, mythology and fables, elementary science, citizenship, etc.

2. Any rural school board which provides a library for the scholars shall be entitled to a share of whatever money that may be appropriated for the purpose by the Legislature, if it purchases such books as are contained in the approved list.

3. Every rural school board which establishes a library under these conditions shall be entitled to a grant, equivalent to half the amount expended, but not to exceed $10, in any one year, and provided the appropriation made by the Legislature will warrant such payment.

4. Should the appropriation made by the Legislature not be sufficient in any year to meet the demands arising from the establishment of rural school libraries, or additions thereto, whatever sum is granted for the purpose by the Legislature which will be paid pro rata.

5. The powers heretofore held by trustees to establish school libraries are not affected by these provisions; and Boards have full authority under the provisions of the statute to purchase books for the school library, and to make such selections as they may deem expedient. Any aid granted from the Legislative appropriation will, however, be based solely upon the amount expended for books given in the catalogue prepared by the Minister of Education.

6. The trustees will be required to make proper arrangements for the care of the library; and the principal of the school will be librarian and act under such instructions as may be given by the Minister of Education, the Inspector, or the trustees of the school concerned.

7. All applications for legislative aid must be made, through the Public School Inspector to the Minister of Education, by the trustees, who shall give all necessary information regarding the books purchased, together with such vouchers from the booksellers as may be required. The Inspector will make application to the Education Department on a form to be provided.

8. All applications by trustees for legislative aid must be made before the first day of July in each year and after the books have been received. Any purchases made after that date may be included in applications made the following year.

Application for Aid.

When books are purchased for the library, application should be made in May or June through the Inspector for the grant to which the Board is entitled. The receipted bills for examination should be forwarded to the Inspector who should compare the lists submitted with the catalogue and make the required application to the Department not later than the first of August. When the Inspector visits the school he should examine the books in the library and see if a proper catalogue of them is kept, and if proper entries are made of the books borrowed from time to time with names of the borrowers, etc.

The aid appropriated by the legislature is confined to rural schools. Public Libraries in urban municipalities receive considerable assistance from the government, and should have also in view the needs of the pupils of the schools. It will be better, however, to have school libraries established also in cities, towns and incorporated villages, and for such libraries this catalogue will be found of service.

Form of Application from Trustees.

Dear Sir,—The undersigned Trustees of School Section No.....in the Township of..... .....County of.....hereby certify that they have purchased.....books, at a cost of $.....and have placed them in the library of the school, to be used as provided by the regulations of the Education Department.

Of the books purchased ....have been selected from the list furnished by the Minister of Education, and for which $..... have been paid by the School Board. Vouchers from the booksellers, showing the prices paid by the trustees are herewith submitted.

....*Sec.-Treas.*

. ...

....

To .. ..
Public School Inspector.

....*P.O., Ont.*

Form of Application from Inspector.

Dear Sir,—The undersigned begs leave to make application to the Education Department for the share of the Legislative appropriation made for rural school libraries. The applications

of the trustees, with vouchers, have been carefully examined, and the school boards of the sections mentioned are entitled to the amounts herein designated :

School Section.	Township.	Amount expended for books recommended.	Amount of Legislative aid claimed.

Yours truly

Public School Inspector.

To the Deputy Minister of Education,
Education Department,
Toronto.

In connection with school libraries the following quotations may be read with interest and profit :

"There is no reason why the work of the school should cease when the pupils finally withdraw from the school. In fact, the school merely starts the young man and woman with the power of using books and the information already discovered to be useful.

"There is little use, perhaps harm, in teaching a person to read, if he does not also learn to read what is good and, therefore, useful.

"The teacher should be mature enough, and cultivated enough, to direct the reading of the rural school section. Trustees should stipulate for such a qualification in addition to the mere license qualification, which is merely a minimum qualification, until we can afford to still further raise the standard.

"The legislature in 1900 empowered school sections at their annual or special meeting to assess themselves for books for a library, thus putting public libraries in school houses on the same plane as the more elementary school work.

"In other words, school work is now recognized by the law as going on within the section after the school is left. The books in school libraries are supposed to be taken home by those attending school, to be used by their parents, or older brothers and sisters.

" There is, thus, a simple system for the cheap supply of communities with the best modern, as well as ancient literature; and with the best books on technical subjects, such as agriculture, horticulture, forestry, public health, mining, woodwork, ironwork, domestic science, etc., etc.

" But a very small percentage of people know the advantages of proper reading. Sometimes very energetic individuals are cast into a stratum of mediocre literature, which develops merely the superficial and defective culture from which it originated; while, if they were thrown into the current of leading thought, they might become creditable leaders of men and of movement in their communities, and, possibly, in larger spheres.

" In most places the teacher must be the missionary in developing this extension of the public school work. It is possible that where such advance may be made and appreciated the law may some time in the near future grant some appreciative recognition."—Journal of Education, Nova Scotia.

" It is one of the most significant facts of modern life that a surfeit of periodical literature, both juvenile and adult, is operating against the

reading of books and the formation of libraries. The magazine has its place, but it also has its limitations; and we should lead our children to understand that, after all, the vital and permanent literature is that preserved for them in good books. Let every child have his little bookcase in the nursery—or, better yet, a shelf in the library which he may call his own. Let him be encouraged to read good books and care for them. He will then come to feel the friendship with them which is the greatest joy of the literary life. A good book, presented to a child on each succeeding birthday—a book chosen wisely with respect to the child's tastes and abilities, but of sterling worth—will soon put him in possession of a library which will be a lasting source of strength and satisfaction. It is a mistake to think that the child must be continually supplied with fresh reading matter—that a book once read is finished. Indeed, the strong intellects of the last century are those which have been nourished in childhood upon a few good books—read and re-read until the thought and style became a part of the reader's permanent possession. Nor does a child lose interest in a good book after a single reading. What boy ever tired of 'Gulliver's Travels ?'

"While nothing can quite take the place of the library in the home, the best substitute for it is the library in the school. Through this medium it is possible for good books to reach into the dark corners of society, and to open to children in homes of poverty and ignorance a vision of wider culture. The school library assumes the most important function of the parent when the parent is incompetent. It teaches the child through what means great and good men have become great and good; how honesty, purity, gentleness, and temperance sweeten and glorify a life. It sets before him ideals not impossible of attainment. It tells him the story of this old world of ours, opens his eyes to the wonders of nature, and demonstrates the goodness of God. Through the children, the parents feel the leavening influence. Men and women who have almost forgotten how to read, and who in their childhood never had good books, take up the volumes which their boys and girls bring home from school, and get a breath from the broader life which is thus opened to them. Surely there is reason enough for the establishment of a library in every school. Educational sentiment is alert upon this subject, and the growth of school libraries during the past decade is a hopeful sign not only of a healthier literary taste, but of a sounder morality in the men and women of the next generation."—Walter Taylor Field, in "The Dial," Chicago.

"We all read novels, we all profit by them. To supply them is a legitimate function of the public library, which is, in part, to furnish instruction through recreation and to cultivate the taste as well as the understanding.

"There is, however, a demand for fiction which I do not believe can legitimately be met by the public library. That is the demand for the latest new novel merely because it is the latest new novel. The free library can not supply the demand for current novels hot from the press. In professing to supply it, the library deludes the public, and reduces its capacity for services really serviceable. I believe that free libraries would gain in resources, and, in the end, in popular esteem, if they would agree to buy no current work of fiction until at least one year after the date of publication.

"They should, at the same time, make obvious their intention to buy the latest work in the arts and sciences as nearly as possible on the day of its publication."—Herbert Putnam, Librarian of Congress, U.S.A.

"The press, we are told, in this publishing season, groans under the mass of inferior novels. Novel-writing is an industry, and a gainful indus-

try, pursued by a multitude of people who have not a particle of genius for the delineation of life and character, but go about hunting up materials for sensation, and sometimes are taking up their abode in slums for that purpose. All this rubbish will find readers. It is impossible that such mental dissipation should not have its effect on mental health. The circulating libraries to which readers flock for novels are intellectual saloons. The consequences will probably be loss of hold on the realities of life, confusion of the moral standard, distaste for unromantic duties. But talking against a prevailing fashion is throwing straws against the wind. Some day even the novel-mill will give out, and we shall get back to the moderate enjoyment of fiction, the work of genuine writers, which will always be one of the charms and solaces of life."—A Bystander, "The Weekly Sun," Nov. 5, 1902.

V. Travelling Libraries.

In continuance of the policy of the Department in the establishment of Travelling Libraries for the newer parts of the Province, adopted in 1901, sets of books (50 in each) have been sent during the year to the following additional centres :

Ansonia, Blind River, Boucherville, Brennen, Cordova Mines, Creighton Mine, Doe Lake, Edgington, Goulais, Gilmour, Mowat, Parry Sound, Seguin Falls, Thessalon, Victoria Mines, Wabigoon, Whitefish.—Total 17.

Applications for Libraries are coming to the Department constantly, and letters have been received from residents of localities to which they have been sent stating that they have been much appreciated.

The following is a list of the books sent:

Case I.—Biography of a Grizzly, (Seton-Thompson) : Captain Ravenshaw, (Stephens) : The Earth and Sky, (Holden) ; Henry the Second, (Green) ; William the Conqueror, (Freeman) ; Henry the Fifth, (Church) ; Livingstone, (Hughes) ; Monk, (Corbett) ; Peterborough, (Stebbing) ; Stratford, (Traill) ; Sir Charles Napier, (Butler) ; Warren Hastings, (Lyall) ; Warwick, (Oman) ; The Caxtons, My Novel, 2 Vols., Pelham, Ranzi, Last of the Barons, Harold, Last Days of Pompeii, Ernest Maltravers, Alice, The Parisians, A Strange Story, Night and Morning, What Will He Do With It, Lucretia, Eugene Aram Goddolphin, Kenelm Chillingly, The Comming Race, Devereux, The Disowned, Paul Clifford, Pilgrims of the Rhine, (Lytton) ; Modern Painters, 3 Vols., (Ruskin) ; The Scarlet Letter, (Hawthorne) ; The Story of Oliver Twist, (Dickens) ; The Study of Breeds, (Shaw) ; To Herat and Cabul, (Henty) ; Burlesques, Christmas Books, Denis Duval, The Four Georges, Henry Esmond, Irish Sketch Book, Men's Wives, Paris Sketch Book, Roundabout Papers, Yellowplush Papers, (Thackeray).

Case J.—Arabian Nights Entertainment ; The Antiquary, (Scott) ; Barnaby Rudge, Vol. 1 & 2, David Copperfield, Vol. 1 & 2, Dombey and Son, Vol. 1 & 2, Great Expectations, Martin Chuzzlewit, Vol. 1 & 2, Nicholas Nickleby, Vol. 1 & 2, No Thoroughfare, Pickwick Papers, Vol. 1 & 2, Tale of Two Cities, The Uncommercial Traveller, (Dickens) ; The Deemster, (Caine) ; Donovan, (Lyall) ; Drake, (Corbett) ; Dundonald, (Fortescue) ; Henry the Fifth, (Church) ; Livingstone, (Hughes) ; Peterborough, (Stebbing) ; Wolfe, (Bradley) ; Daniel Deronda, Vols. 1 2 3., Middlemarch, Vols. 1 2 3., Miscellaneous Essays, Romola, Vols. 1 2 3., Scenes of Clerical Life, Vols. 1 2,, (Eliot) ; Lincoln in Story, (Pratt) ; The Little Manx Nation, (Caine) ; The Prince of the House of David, (Ingram) ; The Progress of the Century, (Wallace) ; Lord John Russell, (Reid) ; Sir Robert Peel, (McCarthy) ; Robinson Crusoe, (Defoe) ; Shadow of a Crime, (Caine) ; Swiss Family Robinson, (Wyss) ; Treasure Island, (Stevenson) ; Uncle Tom's Cabin, (Stowe) ; World of the Great Forest, (Du Chaillu).

Case K.—Adventures of Philip, (Thackeray) ; Black Rock, (Connor) ; Bonnie Prince Charlie, (Henty) ; Bride of Lammermoor, (Scott) ; Burlesques, (Thackeray) ; Condemned as a Nihilist, (Henty) ; Deeds that won the Empire, (Fitchett) ; Barnaby Rudge, Great Expectations, Little Dorrit, Oliver Twist, Our Mutual Friend, Vols. 1 2., (Dickens) ; Captain Cook, (Besant) ; Drake, (Corbett) ; Gordon, (Butler) ; Havelock, (Forbes) ; Lord Lawrence, (Temple) ; Monk, (Corbett) ; Nelson, (Laughton) ; English Caricature and Satire on Napoleon 1, (Ashton) ; A Fighter in Green, (Hayens) ; Fights for the Flag, (Fitchett) ; The Forge in the Forest, (Roberts) ; The Helmet of Navarre, (Runkle) ; The Hosts of the Lord, (Steel) ; In the Permanent Way, (Steel) ; Joan of Arc, (Tuckey) ; John Splendid, (Munro) ; The Little Manx Nation, (Caine) ; The Little Minister, (Barrie) ; Lord Roberts, (Groser) ; The Naval Cadet, (Staples) ; Nicholas Minturn, (Holland) ; Old Mortality, (Scott) ; Pearl Dive (Staples) ; Pierre and His People, (Parker) ; Plain Tales from the Hills, (Kipling) ; Prisoners and Captives, (Merriman) ; Rob Roy, (Scott) ; The Sowers, (Merriman) ; Tales from Blackwood, Vol. III, IV, V, VI ; Through The Sikh War, (Henty) ; To Have and To Hold, (Johnston) ; Treasure Island, (Stevenson) ; Wild Animals I have Known, (Seton-Thompson) ; Ye Mariners of England, (Hayens).

Case L.—Alice of Old Vincennes, (Thompson); Biographical Studies, (Bagehot); Cranford, (Gaskell); William Dampier, (Russell); Eight Years in Ceylon, (Baker); Felix Holt, (Eliot); The First Crossing of Greenland, (Nansen); History of Birds, (Stanley); The History of the Indian Mutiny, 6 volumes, (Kaye and Malleson); Marguerite De Roberval, (Marquis); Montrose (Morris); Oliver Twist, (Dickens); The Solitary Summer; Tales from Blackwood, Vol. I, II, VII, VIII, IX, X, XI, XII; The Abbott, Anne of Grierstien, The Antiquary, The Bethrothed, The Black Dwarf, Count Robert, The Fair Maid of Perth, The Fortunes of Nigel, Guy Mannering, The Heart of Mid-Iothian, Ivanhoe, Kennilworth, The Monastery, Old Mortality, The Pirate, Quentin Durward, Redgauntlet, St. Ronan's Well, The Surgeon's Daughter, The Talisman, Waverly, Woodstock, (Scott); The Duke of Wellington, (Gleig); Wulf the Saxon, (Henty).

Case M.—Alfred the Great, (Hughes); Annals of Switzerland, (Colton): Edward the First, (Tout); Henry the Seventh, (Gairdner); Peel, (Thursfield); Walpole, (Morley); French and English, (Hamerton); The Greville Memoirs, 8 vols., (Greville); Jane Eyre, (Bronte); Sir Henry Havelock, (Marshman); History of England from 1689, (Tout); Kennilworth, (Scott); Micah Clarke, (Doyle); Profits in Poultry; The Professor, (Bronte); Psychology, (James); Quentin Durward, (Scott); Rifle and Hound in Ceylon, (Baker); Scott's Poetical Works; Stalky & Co., (Kipling); Secrets of the Woods, (Long); Shirley, (Bronte); The Sky Pilot, (Connor); Stories by English Authors, (Payne); Tenant of Wildfell Hall, (Bronte); Westward Ho, (Kingsley); The Newcombes, Vol. I, II, Pendennis, Vol. I, II, Philip, Vol. I, II, Vanity Fair, Vol. I, II, The Virginians, Vol. I, II, (Thackeray); Treasure Island, (Stevenson); Via Crucis, (Crawford): Victor Emanuel, (Dicey); Villete, (Bronte); A Voyage in the Sunbeam, (Lady Brassey); When London Burned, (Henty); Wuthering Heights, (Bronte).

Case N.—Alexander the Great, (Wheeler); Allan Ramsay, (Smeaton); Aneroestes the Gaul, (Smith): American Notes, Bleak House, Vol. I, II, Christmas Stories, (Dickens); The Cavalier, (Cable); A Cathedral Courtship, (Wiggin); The Deerslayer, (Cooper); The French Revolution, Vol. I, II, (Carlyle); The Four Georges, Vol I, II, III, IV, (McCarthy); Charles George Gordon, (Butler); Impressions of South Africa, (Bryce); James Thomson, (Bayne); Kate Bonnet, (Stockton); In Kedar's Tents, (Merriman); The King's Mirror, (Hope): Les Miserables, Vol. I, II, III, IV, V, (Victor Hugo); The Last of the Mohicans, (Cooper); Mark Everard, (Magee); Mongo Park, (MacLachlan); No. 5 John Street, (Whiteing); On the Face of the Waters, (Steel): The Opium Eater, (De Quincy); Pembroke, (Wilkins); The Pioneers, (Cooper); The Playground of Europe, (Stephen); The Rise of the Dutch Republic, Vol. I, II, III (Motley); Sir Walter Scott, (Saintsbury); Tales of the Punjab, (Steel); Tobias Smollett, (Smeaton); Tom Burke of 'Ours', (Lever); Tommy and Grixel, (Barrie); Through Armenia on Horseback, (Hepworth); The Virginians, (Thackeray); Voodoo Tales, (Owen); Washington in Lincoln's Time, (Brooks); The Wrong Box, (Stevenson); When Valmond came to Pontiac, (Parker).

Case O.—Bleak House, Christmas Stories, Dombey and Son, History of England, Great Expectations, Pickwick Papers, A Tale of Two Cities, (Dickens); David Livingstone, (MacLaclan); Pollok and Aytoun, (Masson); R. Louis Stevenson, (Black); Sir James Y. Simpson, (Simpson); Sir William Wallace, (Murison); Sir David Wilkie, (Pinnington); Gloria Mundi, (Frederic); Grandfather's Tales, (Creecey); The Honourable Peter Stirling, (Ford); In the Grip of the Spaniard, (Hayens); The Man from Glangarry, (Connor); Montcalm and Wolfe, Vol. I, II, (Parkman); Neil MacLeod, (Lyall); Notes for Hunting Men, (MacKenzie); The Owl's Nest, (Marlett); Penelope's Irish Experiences, (Wiggin); Poems, Vol I, (Eliot); Short Studies on Great Subjects, Vol. I, II, III, IV, (Froude); Some Women I have Known, (Maartens); The Story of my Life and Work, (Washington); The Story of my Life, Vol. I, II, (Temple); The Sunny Side of Christianity, (Parkhurst); The Translation of a Savage, (Parker); The Trespasser, (Parker); Quentin Durward, St. Ronan's Well, Redgauntlet, Betrothed, The Talisman, Woodstock, The Fair Maid of Perth, Anne of Geierstein, The Surgeon's Daughter, (Scott); Westward Ho! (Kingsley); Wild Flowers, How to know them, (Dana); With Shield and Assegai, (Brereton); The World Beautiful in Books, (Whiting); Young Mistley, (Merriman).

Case P.—Agriculture, (James); Principles of Agriculture, (Bailey); Barrack-Room Ballads, (Kipling); The Day's Work, (Kipling); Curiosity Shop, Hard Times, Martin Chuzzlewit, Our Mutual Friend, Nicholas Nickelby, (Dickens); Life and Letters of George Eliot, Vol. I, II, III, Mill on the Floss, Vol. I, II, Silas Mariner, (Eliot); Ernest Maltravers, (Lytton); George Buchanan, (Wallace); Thomas Carlyle, (Macpherson); Richard Cameron, (Herkless); Thomas Campbell, (Hadden); Thomas Chalmers, (Blaikie); William Dunbar, (Smeaton); The Erskines, (MacEwen); James F. Ferrier, (Haldane); Adam Smith, (Macpherson); The Balladists, (Geddie); Journals of the Reigns of George IV and William IV, Vol. I, II, III, (Greville); The House Divided, (Watson); How England Saved Europe, Vol. I, II, III, IV, (Fitchett); Howitt's Visits to Remarkable Places, (Howitt); John Halifax, Gentleman, (Mulock); Lamb's Essay's, (Lamb); The Old Regime in Canada, (Parkman); Prisoners of the Sea, (Kingsley); Pierre and His People, The Right of Way, (Parker); The Redemption of David Corson, (Goss); Red Rock, (Page). Richard Carvel, (Churchill); Some Experiences of an Irish R. M., (Somerville and Ross); St. Ives, (Stevenson); The Antiquary, Anne of Geierstein, The Fortunes of Nigel, The Monastery, (Scott); When Valmond came to Pontiac.

Case Q.—Calumet "K", (Webster); Barnaby Rudge, Vol. I, II, Child's History of England, Dombey and Son, Vol. I, II, Little Dorrit, Vol. I, II, (Dickens); Essays, (Lamb); Academic Gregories, (Stewart); David Hume, (Calderwood); Fletcher of Saltoun, (Omond); James Boswell, (Leask); Robert Burns, (Satoun); Thomas Guthrie, (Smeaton); Folk Tales of Napoleon, (Kennan); History of England to 1509, (Powell); Jane Eyre, (Bronte); John Halifax, Gentleman, (Mulock); Kate Bonnet, (Stockton); Light Science for Leisure Hours, (Proctor); Mary Barton, (Caskell);

Memoirs of Sherlock Holmes, (Doyle); On the Face of the Waters, (Steel); Uncle Tom's Cabin, Stowe); Wives and Daughters, (Gaskell).

French Books.—Euvres, Vol. 1, II, (De Beranger); Atala, Les Natchez, Vol. 1, II, (De Chateaubriand); Contes Du Lundi, Jack, Lettres De MonMoulin, Le Petit Chose, Port Tarascon, Tartarin De Tarascon, Tartarin Sur Les Alpes, (Daudet); Grazeilla, Jocelyn, (De Lamartine); Contes De La Montague, (Erckmann-Chatrian); De La Terre A La Lune, Les Voyageurs du XIX Siecle, Vol. 1, 11, Vingt Mille Lieues Sous les Mers, Vol. I, II, (Verne); Paul et Virginie, (De Saint-Pierre); Consuelo, Vol. I, II, III, (Sand).

Case R.—Anglo Saxon Superiority, (Demolins); At the Point of the Bayonet, (Henty); Bob, Son of Battle, (Olivant); The Bravest of the Brave, (Henty); The Crisis, (Churchill); David Copperfield, (Dickens); David Harum, (Westcot); Eben Holden, (Bacheller); W. E. Gladstone, (Russell); Gordon, (Butler); The Golden Dog, (Kirby); The Habitant, (Drummond); Hans Brinker, (Dodge); Ivanhoe, (Scott); Janice Meredith, (Ford); The Jungle Book, (Kipling); Kenilworth, (Scott); King Robert the Bruce, (Murison); The Man from Glengarry, (Connor); The Old Regime in Canada, (Parkman); The Pomp of the Lavilettes, (Parker); The Rifle and Hound in Ceylon, (Butler); The Right of Way, (Parker); The Sky Pilot, (Conner); Sport with Gun and Rod, (Mayer); Stalky & Co. (Kipling); The Students English Dictionary, (Ogilivie and Annandale); The Translation of a Savage, (Parker); Treasure Island, (Stevenson); A Voyage in the Sunbeam, (Lady Brassey); Waverley, (Scott); With Wolfe in Canada, (Henty); Wreck of the Grosvenor, (Russell);

French Books.—Consuelo, Vol. 1, 11, 111, (Sand); De La Terre A La Lune, (Verne); Eugenie Grandet, (Balzac); Jocelyn, (De Lamartine); La Cousin Bette, Le Cure De Village, (Balzac); Les Miserables, (Victor Hugo); Le Tour Du Monde, Michel Strogoff, Vol. 1, 11, (Verne); Tartarin De Tarascon, (Daudet); Vingt Mille Lieues Sous Les Mers, Voyage Au Centre de la Terre, (Verne).

Case S.—Adam Bede, (Eliot); Autocrat of the Breakfast Table, (Holmes); Bismarck at Home, (Hoche); Black Dwarf, (Scott); Cardinal's Snuff Box, (Harland); Cast up by the Sea, (Baker); The Cat of Bubastes, (Henty); The Cavelier, (Cable); The Choir Invisible, (Allen); Christmas Books, (Dickens); The Creator and the Creature, (Faber); The Crisis, (Churchill); The Day's Work, (Kipling); D'ri and I, (Bacheller); Elizabeth and her German Garden; The Falcon on the Baltic, (Knight); The False Chevalier, (Lighthall); Frederick the Great, (Brackenbury); The Fortunes of Nigel, (Scott); Guy Mannering, (Scott); The Hosts of the Lord, (Steel); Jesuits in North America, (Parkman); John Knox, (Innes); John March, Southerner, (Cable); The Man from Glengarry, (Connor); Many Inventions, (Kipling); The Old Regime in Canada (Parkman); On Hero and Hero-Worship, (Carlyle); Pictures from Italy, (Dickens); Readers,—Animals on Strike, Nature's Wonders, (Carrington); Robert Ferguson, (Grosart); Sir John Franklin, (Beesley); Treasure Island, (Stevenson); The Trespasser, (Parker); To Have and to Hold, (Johnston); Where the Sugar Maple Grows, (Tesky); Public School Geography; Webster's Dictionary.

French Books,—Le Cure De Village, Le Cousin Pons, Le Medecin De Campagne, (De Balzac); Les Martyne, Vol. 1, 11, (De Chataeubriand); Jack, Le Petit Chose, Tartarin Sur Les Alpes, (Daudet); Les Miserables, (Victor Hugo); Paul at Virginie, (De Saint-Pierre); L'Ile A Helice, Vol. 1, 11, (Verne).

VI. Centralized Rural Schools.

During the past five or six years much attention has been given to the problem of improving our rural schools. Valuable work has already been done in drawing public attention to this question and in giving information concerning the efforts in many of the Northern States looking towards its solution. It is claimed that the centralization of township schools has done much towards removing their most serious defects. The great interest in this movement already felt throughout our Province will, no doubt, be stimulated by a perusal of the accompanying citations from various educational journals and reports. Already steps are being taken to test its applicability and value in Ontario. Sir William Macdonald, with his characteristic public spirit and large-heartedness, has undertaken to erect, equip, and assist in maintaining for three years a "consolidated" or "centralized" school in some suitable locality. The experiment will be watched with great interest, and it is to be hoped that a success commensurate with the magnanimity of the donor will be attained.

From the New York School Journal: "During the last decade nearly all the Northern States, from Maine and Massachusetts through to Minnesota, have adopted the plan of centralizing rural schools to a greater or less extent, as a means of improving rural schools.

"Massachusetts was the pioneer by many years, and has very definite legislation on the subject. Pennsylvania newspapers are filled with enthusiasm over the prospect of an early State management of the new system.

Ohio has long since carried her Kingsville centralized school far beyond the pale of experiment, and made it of national repute. Indiana and Illinois superintendents are making pilgrimages to Ohio's Mecca, the school at Kingsville, to inspect its workings; and far-off Wisconsin writes to Florida seeking Duval County's experience and mode of operating the transportation system connected with her centralization of rural schools during the last four years.

"There were, six years ago, in Duval County, forty-five rural schools of one teacher each, for white children, established by former administrations. The work of these schools in general was so unsatisfactory and the per capita of expense ran so high in many of them, that the present administration determined to reduce the number to fifteen schools of three teachers each,

"In choosing sites for the centralized schools, the ones having the greatest number of school children within a radius of one and a half miles have been preferred. Five of these schools are now in operation, each accommodating the children of about sixty to one hundred square miles of territory.

"Others will be planned and established as rapidly as funds will permit. The concentration of the children into these new schools is accomplished by means of wagonettes, specially designed for the purpose, and provided by the Board of Public Instruction at public expense. They are of such capacity as to carry eight, ten, twelve, fourteen, sixteen, eighteen and twenty pupils respectively, and cost from $70 to $100 each.

"Twenty-seven of these comfortable vehicles are now running, at an average cost of $23.50 per month each.

"These twenty-seven conveyances enable us to close twenty-four of the old one-teacher schools, the current cost of which had previously been not less than $45.50 per month for each.

"Hence the transportation system now in operation produces a current saving of $462 per month over the old method.

"Taking from this $225, the increase in salaries for eight assistants at the centralized schools, and there is still left a net saving of $237 per month which will pay for twenty wagonettes annually if the term be only six months.

"Financially, therefore, transportation in Duval County is a very decided success."

Centralized Schools of Ohio.

"Principal Professor Morrison, of Perry, Lake County, is a pioneer in the matter of centralization. He says that it is no longer an experiment, that the new movement is the logical solution of the country school problem, and that centralization of districts, with transportation of pupils, has come to stay. It gives much better schools with but a slight, if any, increase in the cost to the township. The opposition to the plan has long since died out. This was the testimony at every place we visited. At North Madison three wagons are used. One of these carries all the children from one district, about twenty in number. The route is five miles long. That is to say, starting at the first home to pick up a child, until he arrived at the central school is five miles. Then he drives back home after delivering the children, thus covering ten miles in the morning. Of course, he travelled the same ground after school, thus making twenty miles in all. He got $1.20 a day for his work. We asked him if he made any money at it. He said he did, as he was working a small farm that did not require all the time and labour of himself and team. We asked him if he had any

trouble with the children, and he replied, none. He said he was employed by the township board of education, who put him under bond to be careful with the children, to have a safe team, to provide a suitable wagon, covered and provided with curtains, and containing soapstones and lap robes for the severest weather. We asked what objections the parents along the route had to the new plan. His reply was that the only objection was on the part of two or three at the beginning of the route, as they had to get their children ready somewhat earlier than they used to when they went to the district school. Of course, the children must be ready when the wagon came. He aimed to start at 7.30, and arrive at the building not later than 8.45. Thus, there were no children tardy; none came with wet feet or clothing; the attendance was greatly increased, and much more regular. The driver believed the movement had come to stay; that the people would not consent to go back to the old way.

"Kingsville, Ohio, is a small village, with a township high school. To this school are brought all the children of the township, with the exception of two districts. Four wagons are used, at a cost of $20, $25, $24 and $28 per month, respectively, for a month of twenty days. The school year is nine months. Five teachers are employed in the building. There is an actual saving in the total cost to the township under the new plan; and while money is expended for transportation of pupils, it is more than saved in the fewer number of schools operated. And, as to the increased efficiency of the new centralized school over the scattered schools, that is beyond a question of doubt.

"It was here that the Ohio plan of centralization had its origin in 1892. The erection of a new building in one of the districts of Kingsville Township brought up the question whether or not it would be better to abandon the school in that district and take the children to the village school at the general expense. In this first case of consolidation in Ohio the schools were centralized at the village school, a village situated about a mile and a half from the railroad. The results, educationally, in the small districts are far from satisfactory."—Supt. O. J. Kern, Rockford, Ill.

In 1899 this appeared in one of the magazines:

"The residents of the sub-districts of Kingsville Township, which have adopted this plan, would deem it a retrogression to go back to the old sub-district plan. It has given the school system of Kingsville an individuality which makes it unique and progressive. Pupils from every part of the Township enjoy a graded school education, whether they live in the most remote corner of the Township or at the very doors of the central school. The line between the country-bred and the village-bred youth is blotted out. They study the same books, are competitors for the same honors, and engage in the same sports and pastimes. This mingling of the pupils from the sub-districts and the village has had a deepening and broadening influence on the former, without any disadvantage to the latter. With the grading of the school, and the larger number of pupils, have come teachers of a more highly educated class. Higher branches of study are taught; the teachers are more conversant with the needs of their profession. The salaries are higher; the health of the pupils is preserved, because they are not compelled to walk to school in slush, snow and rain, to sit with damp, and perhaps wet feet, in ill-ventilated buildings. Nor is there any lounging by the wayside. As the use of indecent and obscene language is prohibited in the wagons, all opportunities for quarreling or improper conduct on the way to and from school are removed. The attendance is larger, and, in the sub-districts which have taken advantage of the plan, it has increased from 50 to 150 per cent. in some cases; truancy is unknown. It has length-

ened the school years for a number of the sub-districts; it has increased the demands for farms in those sub-districts which have adopted the plan, and real estate therein is reported more saleable. The drivers act as daily mail carriers. All parts of the Township have been brought into closer touch and sympathy. The cost of maintenance is less than that of the schools under the sub-district plan; the Township has had no school-houses to build; it has paid less for repairs and fuel. Since the schools were consolidated the incidental expenses have decreased from $800 to $1,100 per year to from $100 to $600 per year. In the first three years following its adoption, Kingsville Township actually saved $1,000."

The following description of the country schools of Ohio has been kindly supplied by Mr. G. A. Hubbell, of Erasmus Hall High School, Brooklyn, who himself taught for four years in the county schools of Ohio, and only three years ago spent some two months in visiting Ohio schools, a considerable amount of the time being spent in visiting country schools.

"Ohio, one of the United States, has an area of 41,060 square miles. The State has 88 divisions, called counties, not uniform in size.

"Greene County, Ohio, has an area of 450 square miles, and is divided into twelve townships. Beavercreek Township has an area of 50 square miles. It is esteemed for the culture and enterprise of its inhabitants, many of whom own the farms on which they live. This township has no towns or cities, and but two small villages or hamlets. The township has been divided into thirteen school districts, giving about four square miles to each; near the centre of each tract of four square miles is located a neat and substantial brick building of one room, capable of seating, in single or double seats, from 30 to 40 pupils. The school begins in September, and continues for a period of eight and one-half months. It is taught by one teacher, who gives instruction in the subjects required by law, viz., reading, writing, spelling, arithmetic, geography, grammar, history of the United States and physiology. The pupil attends school from 6 to 14 years of age, or until he has completed the studies of the eight grades into which the work is divided. Whenever possible, class instruction is given, but, of necessity where the classes are small, much of the instruction must be individual. Here, as elsewhere, the teacher is the soul of the school, and it must be said that, as a rule, the teaching is good, and the students who leave this school make useful and self-respecting citizens. Many of the students desire to pursue their studies further, and for such there is provided a Township High School, free to all students in the township who have finished the work of the district schools mentioned above.

"The High School building is located near the centre of Beavercreek Township, and is reached, over good roads with horse and carriage, from any part of the township in less than an hour's drive. The school building stands in a healthful grove, and on the grounds are stables and sheds, affording ample shelter for the horses and carriages until the students shall need these for their return home in the evening.

"The High School has an excellent course of four years. Instruction is given by a head teacher and his assistant. The head teacher is also superintendent of the district schools, and, with the teacher of each school, determines the promotion of all students from that school.

"The High School has a well-selected library, which is used extensively by the students and by patrons of the school throughout the township. There is also considerable apparatus for experimental work in physics. Every student in geology is required to make a collection of minerals and soils from the rich deposits afforded by the drift, which covers this part of the State.

"It has seemed best to describe rather fully the country schools of a township where the graded system has been conducted under supervision with gratifying results. Although little more than a fourth of the State has township supervision, and the graded schools only are found under supervision, it is safe to say that a country school in charge of a strong, competent, and energetic man or woman, does wonders for its students, and there are hundreds of such schools in Ohio. The teacher studies every child with care, and, with a knowledge of his home surroundings, he strives to rouse him to the highest ideals and efforts of which he is capable.

"Ohio has many small colleges, and the first thought of the teacher is to turn the eyes of his students towards one of these. Growth in character and in power is made an individual matter, and many a man now holding a position of trust and honour in political life is proud to trace his first inspiration to the rural home or the rural school. Many an educator can trace his line of ascent back through German or American Universities down to the small, but important, beginning in the country school. I do not claim that all country schools are good, but I do claim that many a one is blessed with a teacher whose personality is an effective agency in inspiring the student to seek high scholarship and sound character."

"Abolition of small sections.

"The small, weak school section, less than four miles in diameter, is now not allowed by law to be put on the poor list if it can be geographically attached, in part or otherwise, to existing school sections. Sections which neglect to provide a teacher should, also, if possible, be annexed to existing sections.

"The weakening of sections with the consent of the well-meaning Boards of District School Commissioners, has reduced the remuneration of teachers in many communities to a farce. Teachers are actually offered salaries less than $20 a month, while the young lads of the section can walk off unlettered to drive a team or trim coal at from $30 to $75 a month. The grand and only fundamental defect in our educational system is the small salaries which the small-minded and untutored freemen of the majority of our rural school sections have got into the habit of voting.

"It is hard in many places to raise salaries sufficient to attract a teacher who has capacity beyond that necessary for a teamster; but when in such a poor district the school section is allowed to be cut down smaller than the minimum found by experience everywhere to be compatible with the attendance of pupils, the educational authorities sanctioning or abetting such changes can also be held responsible for what is worse than folly.

"It is gratifying to find so many of such school sections being absorbed from year to year in the more civilized portions of the Province; and the credit appears to be mainly due to the often thankless efforts of our energetic and invaluable School Inspectors. May their influence yearly increase."—Journal of Education, Nova Scotia.

"From the inception of the State control of primary education in Victoria, it has been the endeavour of the Government to provide educational facilities to all children between the ages of 6 and 13 years, but, as the minimum cost (excluding bulidings) at which a school can be maintained in this State is about £100, the rule has been laid down that no new school shall be opened which cannot maintain a probable average attendance of fifteen pupils. If an attendance of twenty pupils can be secured, a full-time school is generally established, but otherwise a part-time school is established whenever possible. . . . . In the smallest class of schools it is the

practice for the parents of the children to erect a room which the Education Department lease at a small rental.

"In certain cases, allowances for the conveyance of children to State schools may be granted. As a matter of economy, the Department has had to close many of the smaller schools, and in lieu thereof to grant conveyance allowance. . . . . In some instances also it has been considered more economical to convey children in a new district to an existing school than to open a new school. On one occasion, the Minister of Education for the time being issued an order that conveyance allowance was to be granted to any children who lived beyond the school distance prescribed in the Education Act, viz., 3 miles, but the applications were so numerous that it was found that the funds at the disposal of the Department were quite inadequate to provide for such payments, and so the order was countermanded.

"When a school has been established it is the practice to keep it open as long as possible, even though the attendance may have been considerably reduced. Thus, out of a total of about 2,000 schools in the State, there are 29 with an average attendance of under 10 pupils, and 279 with an average attendance of 10 to 15 pupils.

"I may mention that this Department has always insisted on the same standard of attainment in its country schools as in those of the cities. In this respect, Victoria is somewhat different from other Australian States, in which a system of provisional schools with a more meagre curriculum exists."

Sir John Gorst is reported to have said in the Imperial Parliament:

"There is another thing on which money is spent, and that is in getting children to school. School Boards have no power to do that. There are many country places where the best way of getting the children to school is to send a waggon round. Money is actually so spent at the present moment, and I never heard of any objection being taken to it by anybody. I never heard of any auditor objecting. I should be very sorry if this Bill should in any way interfere with so laudable an expenditure."

VII. Improved Conditions for Farmers.

For several years the rush from the farm to large centres of population has been noticeable in all civilized countries. The social and political problems, which this tendency brings forward for solution, have engaged much attention. Many persons have watched with alarm the manner in which urban populations have increased at the expense of that of the country. Doubtless the introduction of machinery in farming operations, and the rapid growth of large manufacturing industries, have had much to do with the changed conditions. It must, however, be admitted that the desire to escape the hardships and isolation which, have been a part of rural life in the past, has had much to do with the exodus from the country to the city. It must be admitted, however, that all the advantages are not in favor of city life. As a consequence, we find in large cities special efforts made by well-to-do families to live in the country for a portion of the year. The development of electric railways and other means of transportation has aided in checking the congested condition in centres of great population. It is satisfactory to know that the conditions of life for farmers are likely to be largely improved by important industrial and social developments. Education, if properly directed, may accomplish much. The isolation and loneliness of farm life may be ameliorated to some extent by improved methods of mail delivery. This will induce persons in the country to patron-

ize more fully daily newspapers and magazines and other periodicals. It is not too much to suppose that, in addition to better rural delivery of the mails, the time may come when the farm telephone will be extensively used. There are, however, certain movements of an educational character which are now available and from which very beneficial results may follow. Among these may be classed Travelling Libraries and Rural School Libraries. The former have already proved to be very welcome visitors to the new and sparcely settled portions of the Province. Much more, however, may be expected from School Libraries, which, it is hoped, will soon find their place in every section of Ontario. It would be a pity if the youth of our country should be deprived of any of the advantages coming from the reading habit. Perhaps no expenditure of public money will do more good that that employed in procuring books for the children brought up in rural districts. From the interest taken by the public in this movement, and especially from the enthusiasm displayed by inspectors and teachers, the success of the movement for School Libraries is well assured.

The consolidation of country schools is another important educational problem. Heretofore it has been necessary to send the more ambitious children whose parents can afford the cost to the High School in town after they have passed the Entrance examination. The advantages of High School education has often become a strong incentive to the farmer to leave the country and to move to city or town in order that his children might receive good educational advantages. The growth of Continuation Classes has been a marked feature of educational development of late years. There is still a lack of opportunity for many children, and this defect may well be obviated by a consolidation of country schools. If the consolidation of schools in a township were to become general, three teachers would be found capable of performing the work formerly attended to by four, and the children would have the advantages of a graded school. The experience in Kansas, Indiana, Ohio, and especially in the Eastern States, warrants this Province in taking advantage of the provisions of the Public Schools Act towards the consolidation of schools in rural districts.

With increased knowledge and intelligence, it will follow, as has already been noticed, that farmers put more of science into their work. The work of the agriculturist becomes lighter on account of improved machinery. The heavy house work, which often falls to the lot of the farmer's wife, may be alleviated in many ways. No doubt there will always be a certain flow of population from the country to the city. This, in itself, has some advantages. The city needs that strength and vitality which the country boy possesses; but the excessive exodus from the farm to the city may be largely prevented if every reasonable step is taken for lessening the hardships of the farmer and alleviating the conditions that arise from isolation.

VIII.—Moral Training.

I might be regarded as stating something commonplace were I to state that the most important work of our schools is the development of character. The laudable rage for knowledge has, however, too often caused moral training to be slighted. Moral growth doubtless calls for intellectual progress, but the fact should never be lost sight of that the mere acquisition of knowledge is not the highest aim of the student. Perhaps the rapidity with which intellectual power has during the last century supplanted physical force, has sometimes unduly magnified the value of mere learning. It would be idle in the face of what is constantly brought to the public gaze by means of the press, to deny the urgent need of increased attention to moral

training. At the same time, there ought to be little difficulty in meeting the contentions of the pessimist, who fails to recognize the great improvement made in the general morality of the children attending our Public Schools. It is also only fair to give the teacher full credit for what he has accomplished, and to be prepared to show what a powerful agency the school may be made in moral advancement. The school has, undoubtedly, its responsibilities, as well as all other educational agencies, but the imputation that the school is greatly at fault is very unjust. Too often the imperfections of the school are made solely responsible for the evils of society.

It should never be forgotten that the most important requisite of moral training is a teacher of high moral character; and to secure better teachers, higher qualifications must be exacted. Children naturally look to the teacher for guidance, and if they find him actuated by a spirit of truthfulness, industry and courtesy, the disposition to imitate will soon show itself. As is so often said, the scholars need models rather than critics. The teacher, to have the best moral influence, must also be successful in the discharge of his duties. If he is master of his profession, the children are readily trained to habits of punctuality and regularity; and in the present age when so much work is done by machinery, the value of both punctuality and regularity can scarcely be over-estimated. The silence which a good teacher cultivates, forms habits of incalculable value in carrying out those complex arrangements to be found in modern industrial enterprises. The pupil who is properly trained, readily understands the duties he owes to himself, and the value of correct habits, constant self-culture, and habits of thrift become part of his character. Indeed, it has been well said that what distinguishes the educated man from the uneducated one, is that the former has learned to think while the latter has not. The well-trained child learns to recognize the rights of others, and forms habits of modesty, decorum, respect for public opinion, magnanimity, etc. Courtesy is one of the most valuable features of character to receive attention in the school. The opportunities for cultivating this habit are constantly occurring. The well-trained pupil forms correct opinions of justice and respect for law. Pupils trained to have regard for the rules of the school and the rights of their fellow-pupils, soldom become lawless, and generally take their place as useful citizens. Lax discipline in the school lowers the moral character of pupils. Indeed, the best teacher is the one who is the best disciplinarian—using the word discipline in its highest and best sense.

Regarding moral instruction in our schools, State Superintendent Chas. R. Skinner, Albany, N.Y., says:

"At a recent educational gathering, the statement was made by one who claimed to be an educator, that morality cannot be taught in our Public Schools. The only inference to be drawn from this statement is that morality cannot be taught apart from religion. I am enough of an optimist to believe that this is a narrow and unjust conception of the purpose and power of our Public Schools. Education should be made compatible with and inseparable from morality, and our schools are the recognized and legitimate agents to make this a fact.

"Every consideration of good policy, of healthy social condition, points to the necessity on the part of our schools of giving more careful attention to the inculcation of morality in our youth, a moral training which will control and regulate conduct everywhere—in the home, in the school, on the street. The overwhelming testimony of strong leaders in education to-day justifies this demand, and rebukes the theory that the Public School is powerless to give this instruction. Overwhelming public opinion demands moral instruction.

"Every true life must be guided by moral principle. Behind every well-rounded education must be a background of rugged morality. We cannot ask our teachers to give religious instruction, but we have a right to insist that they shall recognize the underlying principle of morality as a guiding force in life. The moment we admit that morality has no place in the school, and that religious training must be substituted, we introduce a most dangerous element in our system of public instruction.

"Morality is a fundamental part of all religion. A man may be moral without being religious, but he cannot be truly religious without being moral. To teach morality in our schools is to teach the mighty difference between right and wrong, the advantage of always doing the right thing, that honesty is always the best rule of conduct. It is to teach unselfishness, reverence for authority, respect for the rights and opinions of others, good conduct, good manners, courtesy (always the outward and visible sign of other admirable qualities), a taste for good reading, pure thoughts, generous actions, reverence for the Sabbath, for nature and her children, birds and flowers, and animals.

* * * ** * * * *

"Formerly we relied chiefly upon the home and church to train our youth along ethical and moral lines, the recognized province of the schools being to give intellectual training and, incidentally, to supplement the work of the other two agencies, rather than to undertake the initiative. But there seems to be a continual transition in progress, by which the former functions of church and home—as related to moral and ethical training—have more and more devolved upon the schools. However such a change in conditions may be explained, the fact stares us in the face, and if our schools remain true to their traditions, must be neither ignored nor slighted. Instead, we must, with renewed vigor and greater acumen, prepare to meet the demand which the public makes, and shape our action to the growing necessity of public school training along intellectual, moral and ethical lines. That our schools have so far responded nobly to the demand, I know, and that their work in the last two fields has been of greatest value to the state may not be disputed by any at all familiar with present conditions. That they will continue to improve their work along these lines is undoubted, and our duty to-day is to consider how the most satisfactory and helpful results may be obtained with the force and resources at our command.

"The question of moral training admits of but one answer as to its desirability or its necessity. The truth is forced home upon us that intellectual training, unless balanced by good morals, is liable to become a danger to society and to our institutions. But true morality is the basis of religious teaching, and, while the task of giving moral training without running counter to sectarian prejudices may seem delicate and difficult, yet even here, success has crowned the efforts of conscientious and intelligent teachers, and the ever-growing sympathy and devotion to duty of our teaching force may be relied upon to inculcate good morals in our youth in a manner satisfactory to the reasonable demands of the patrons of our schools. The work requires tact, skill, sympathy, and the spirit of a true moral nature, well-balanced judgment, and freedom from personal prejudice."

IX. Nature Study.

One part of the moral and civic training given in the country schools has been noticed in connection with the efforts on the part of Cornell University and the New York State Superintendent of Public Instruction to

introduce nature study into these schools of such a kind as to create a love for the country and country life. The method of conducting this work was described by Professor Bailey, of Cornell University, in an appendix to a report on rural schools presented by a committee of the National Educational Association in 1897 :

"The plan of effort in this teaching was to visit two schools during the day, one in the forenoon and one in the afternoon. The arrangements were made in advance with the school commissioners or the trustees, and the fact that the speakers were to be at the school-house was ordinarily announced some days in advance so that parents and friends could visit the school at that time if they chose. The teacher was in every case willing to omit the regular exercises for an hour or two, in order that our instructors might take up the work of object teaching with the children. The motive in this work was to find out just how the pupils could be reached by means of object-lesson teaching, and just how much interest they would be likely to manifest in agricultural matters, in case it were ever found to be desirable to introudce such teaching as a part of the district school work. The instructor would first explain the reason for his coming. He then ordinarily took up some simple object lesson. It might be, in one place, a stalk of corn which he had in his hand, and the process of growth of which he would explain from seed to harvest; it might be, in another case, the germination of a bean or a pumpkin seed; it might be, in another case, the habits or structure of a potato bug or some other insect; it might be, again, the reasons why there were knots and knot-holes in the wood-work in the school-house; it might be a very elementary talk upon the different plant foods which are in the soil; it might be, in other cases, a very brief sketch, with charts, of some fungus; and so on. These exercises were uniformly well received by both the pupils and the teachers, and this work has, I think, awakened more inspiration in the minds of our instructors than any other attempt which we have yet made to reach the people. The teachers in the schools have, without exception, expressed themselves as willing and desirous of taking up some such simple exercises as a rest for the pupils two or three times a week, if only they themselves could be instructed in the proper methods of carrying on the work. In order to afford this instruction to the teachers, we are now proposing to issue a series of experimental leaflets on object lessons, and place these in the hands of the teachers. (A great number of these have since been printed, and are eminently usable).

"There is no doubt of the necessity for work of this kind with the children. The love or antipathy of the farm is engendered at a very early age in the minds of the young. This has been demonstrated in these October meetings, when we have asked those children who live on farms and who still desire to do so to raise their hands, and we almost uniformly find that the number who desire to live on farms is far less than those who actually do live on them. With these children, ranging from six to fifteen years of age, the question of pecuniary profits upon the farm has appealed very little, but they are influenced directly by the environments under which they are living. These environments must be improved; and, if they are, there is every reason to expect that children will love the country better than the city. We have thought, therefore, that it is eminently worth while to instil the love of nature and the knowledge of a multitude of living things into the minds of the children. An important question here arises. What is to be the future of our rural schools and of the agriculture of the State if the present generation, as seems so clearly indicated, is not satisfied with rural life, and feels no interest in maintaining or contributing to the agricultural and educational interests of the State ? While many more

rural school-houses must become deserted, there are thousands of children already in our cities who are deprived of school advantages because adequate room does not exist for them to get into the schools of the city. The further problem also arises of the difficult economic questions to be met in our cities as the result of congestion of population. The standard of teaching has been much improved in New York State. It has been gratifying to meet so universally teachers who are not only well qualified, but who are doing excellent work in their schools, and who have the true teaching spirit. Our educational forces are thoroughly efficient and well equipped, but there is a need of different application of our school work in rural districts. The life of the district needs to be changed, and it can in no way be so effectively done as through our schools."

In a further supplement of the same report, the late Colonel F. W. Parker writes upon the "Farm as a Centre of Interest." He sketches the actual experience of a farm boy in New England—'an ordinary child, such as you may meet anywhere in this world of ours,' and the insight into various branches of knowledge which he gained. He studied geography, observing hills, valleys, springs, swamps, and the brooks running through the old farm; he knew, in an elementary way, the nature of the soils; he knew all the kinds of grasses, the weeds, and the flowers, the trees, and the different kinds of timber; the animal life of the farm was very close to him, the wild animals and the birds. "His ploughing, hoeing, haying, digging, chopping, lumbering, his mending of sleds, and making of cider, sugar, lye, and soap, were all so many practical lessons in life which exercised his body, stimulated his mind, and strengthened and developed his purpose in life.

"He lived to become a school-teacher, and taught school earnestly and bunglingly for twenty years before he had even a suspicion of the value of his farm life and farm work."

In the same connection, a sectional report was drawn up having reference to the enrichment of rural school courses by including subjects drawn from the environment and from the life of the pupils. The postulates upon which this special report was based were: That children should be taught to gather culture, knowledge, and inspiration from everything with which they come in contact; that the study of the environment is especially effective in discipline and inspiration, since it is tangible, vivid and impressive; that it serves as a bond between the out-of-school and the in-school life; that in time it will create a bond of sympathy between the parents and the school. "We assume that a school, to be a true rural school, must take tone and colour from rural surroundings, and must contribute directly to the enrichment and inspiration of rural life. We believe that this will aid in giving meaning and attractiveness to life in the country." Studies of the landscape, hills and valleys, streams and soils, in relation to the location of dwelling-houses, roads, villages, social and civil life of the people; vegetation; studies of plant life, animal life, and atmospheric phenomena, were indicated as specially appropriate to country schools; yet not so as to narrow down the course to the study of the near and the familiar. As the report elsewhere says:

"The course of study of the elementary school, whether urban or rural, should contain those branches which give the child an insight into the physical world and the means of conquering it for human uses, and also an insight into human nature and the motives that control the actions of men. The child should, above all, be taught how to combine with his fellows to secure reasonable ends. The windows of the soul are to be opened by the five branches of the course of study, thus enabling the youth to see (1) the conditions of inorganic nature by arithmetic and the elements of physics

and chemistry; (2) the conditions or organic nature by studying plants and animals, the land, water and air, and, besides these, the means that man invents and uses to connect each place with the rest of the world—these things belonging to geography. These two 'windows' look out upon nature. The three others enable us to see man: (3) literature and art as revealing human nature, arousing pure and high aspirations in the youth, and freeing him from narrow and mean views of life; (4) the study of the structure of language, as found in the several divisions of grammar and rhetoric; (5) history, which treats of the greater self—of man as a social whole.

"These five branches belong to all schools, for they relate to the substance of humanity, and are necessary for entrance upon civilization. There are collateral branches that each school should include, and some special attention to the elementary principles of the useful arts practised in the neighborhood of the school—namely, farming, horticulture, grazing, mining, manufacturing, or the like.

"In general, these collateral branches should relate to the pupil's environment, and help him to understand the natural features of that environment, as well as the occupations of his fellow-men in the neighborhood."

President D. S. Jordan's Address,—Leland Stanford University.

"The chief value of nature-study in character-building is that, like life itself, it deals with realities. Nature-study, if it be genuine, is essentially doing. This is the basis of its effectiveness as a moral agent." These words are quoted with a twofold purpose, partly because they state, from the standpoint of an eminent educator, the underlying parallelism between nature and life, noted by many writers from Comenius onwards, partly because they present the study of nature as an integral part of the training of intellectual and moral character. The directors of the Horace Mann School at New York have a threefold purpose in introducing nature-study into their course. It is "to prepare the individual for life by training his mental power of observation and of generalization, by deepening and rationalizing his emotional life, and by increasing his social worth."

The Superintendent of New York State is actively interesting himself in the formation of children's Nature Clubs; the children go out on collecting expeditions, are encouraged to adorn the walls of the school buildings with artistic pictures of domestic and farm life, to beautify the home, garden or school premises, and even to care for the public highway. One of the aims of the movement is to create an improved public sentiment with respect to country life, and to stimulate habits of thrift and of contented enjoyment of one's environment.

Similar effort is being made in Massachusetts. Referring to Nature-study in the lower grades, the public document issued by the State Secretary for Education says: "Here is one study, at least, where mere acquisition may be thrown to the winds; one study where the higher aim is not so easily missed—that of keeping the child in an ever-enlarging sense en rapport with the world that excites his wonder." In the same connection, strong support is given to the efforts of the Audubon Society for the protection of birds, as meaning very much for the "boys and girls whose minds and hearts they tend to unlock." Mr. Warde Fowler, reviewing a book which hails from Minnesota on the study and protection of birds, said recently: "If boys and girls can be taught to take an interest in the simple facts of bird-life, if they can learn the arts of protecting and encouraging it, they will in time become as much interested in the preservation of birds as in their destruction. It is no good to tell boys that bird-nesting is cruel; that is a frontal attack upon their position which is sure to fail. You must

take them in flank, by rousing their interest in the living birds, their habits of life, their food, and the other needs they have, the causes of their increase or decrease, their migrations, and so on. We want such an institution as the "Nature and Arbor Day," which the State of Minnesota established last year to be observed in all colleges and schools in the State, 'for the promotion of a spirit of protection to birds and trees, and the cultivation of an appreciative sentiment concerning them.'"

What is intended is not the technical side of Nature-study. Much of this, it is believed, will come in gradually and almost unawares. Part of the course at Worcester, where Dr. Hodge, of Clark University, acts as supervisor of Nature-study, is to plant school gardens, and grow flowers. Respect for plant life and for other people's gardens has grown there by leaps and bounds. Nature clubs are formed for the defence of birds; the children learn their habits and their uses, and become their protectors. Cornell University has associated a Nature-study programme for schools with its University extension work by the formation of junior naturalist clubs and providing special teachers. It is thought that Nature-study in country schools may have the effect of deepening interest in country life and surroundings to such an extent that, as the children grow up, there will be less temptation to rush off to the cities. This would be an economic effect, resulting from enlightenment and enlarged sympathy. Another social and economic result claimed for the study is that it prepares the way for a better mutual understanding and appreciation on the part of various classes of workers by awakening the sympathies of town children with rural industries, as well as with some of the attractions of country life.

One of the directors of this branch of work at Cornell (Professor Bailey) wrote: "Our Nature-study work was introduced in the Public Schools with the view of interesting the children of the rural schools in some of the common things about them. It has developed somewhat in that direction, but the schools of the cities and towns have taken it up out of all proportion to those of the country. I have been trying to interest some children in England to organize junior naturalist clubs, hoping that the diversity of the two countries would give an exchange of compositions that would be interesting."

"Nature-study, in the popular mind, is a somewhat vague and general term, applied to almost any discussion of the phenomena of the physical world. As a matter of fact, it is a term especially coined for a new element in education, which has for its object the cultivation of the child's intelligent interest in his out-of-door environment. Many have been the theories concerning the best methods of teaching Nature-study. That we have found many of these theories untenable in actual practice is a cause for cheer instead of discouragement, since it makes us at the present time more sure of our views, attained by elimination. From the first, many educators have held that the trained teacher alone could help the pupil interpret nature, and that books on the subject led only to love of books, and not to love of nature. Considering many of the natural history books in vogue in the past, this argument had much to support it. But recently other books have been written that just as surely lead the child to an appreciation of nature as does the trained teacher.

"The Nature-study books of to-day fall naturally into three classes. To the first belong those books written to help the pupil in special subjects, such as the books devoted to the study of birds, trees, wild flowers or insects. These are usually enlivened by many beautiful illustrations; and the text, aside from technical descriptions, is written in an interesting and entertaining manner. In fact, the great value of these books lies in

this text. If the writer loves his subject, and writes with feeling and understanding, he inspires his reader to take a life view. We have in Thoreau's writings a classic example of what interesting and sympathetic descriptions of common out-of-door happenings can do in opening eyes that were blind and hearts that were closed to Nature's daily miracles.

"To the second class belong those books which tell stories of action and adventure, either on the part of the animal or the observer. These may be stories of the hunter or naturalist—like the books of Mr. Long and Mr. Ingersoll and Mr. Burroughs—full of careful and accurate description of the habits of wild animals, as well as their adventures. In all these cases, the books deal to a greater or less degree with the animals the child is not likely to see outside the zoological gardens, and, therefore, strictly speaking, have nothing to do with the child's environment. Yet these books are of the highest value to the child from a pure Nature-study standpoint, because they cultivate his imagination and sympathies and intensify his interest in animal and bird life, and teach him to love the 'little brothers' of forest, field, stream and air.

"To the third class belongs a certain type of alleged Nature-study book, where the author falls hopelessly between two stools; for books of this type are not sufficiently accurate in fact to be good Nature-study, and are not sufficiently well written to be good literature. Especially are these books to be feared, since they are sure to mix fact and fancy in the mind of the reader. The writer's imagination is allowed to run riot for the sake of adding variety to the style."—Anna Botsford Comstock, Cornell Univ.

X. Technical Education and Manual Training.

The success of the German Trade and Technical Schools in training young men for active and effective participation in industrial life has been the subject of innumerable addresses by publicists, statesmen and educationists. Current reviews, journals and newspapers are teeming with articles on the importance to the national welfare of making adequate provision in any general scheme of educational effort for the introduction of technical instruction. Already in Ontario commendable progress has been made in this direction. The Technical School in Toronto is proving one of the most popular educational agencies in the city. Kingston, Brantford, Stratford and Renfrew have organized classes for technical instruction, in some instances in connection with their Collegiate Institutes, but in Stratford and Brantford separate buildings have been erected for the purpose. Other places are moving in the matter, and it is not improbable that before long in every large centre of population in Ontario there will be found provision for giving instruction in the knowledge and principles of the sciences and their application to industrial enterprise. The Provincial Legislature has recognized the great importance of the question, and is giving substantial financial encouragement to the movement. Trades and labor organizations, at first hostile, are now friends of the cause.

The recent appointment of an Inspector of Manual Training, Technical and Art Schools (whose special report will appear in Part II. of this Report), is a further recognition of the desire on the part of the Government to promote the special work which these schools are doing. The accompanying quotations bearing on this and cognate educational problems will be found instructive and helpful.

Employment of School Children in Work.

A few years ago the attention of the British House of Commons was drawn to the excessive work performed by many children of school age, who, instead of having their attention mainly confined to their studies, were

employed a large portion of their time in factories. The feeling in England became so strong that measures were adopted to mitigate the evil, by having a statute passed prohibiting children so young from being thus employed. It has been recently pointed out that, while a movement was justified, there is a feature of the question which should not be overlooked. Two years ago, a Committee was appointed to consider further the whole question, and the report of the Committee is very interesting. In substance, the report of the Committee is to the effect that, while there were just grounds for legislation, it is a mistake to suppose that young children are injured by being for a short time employed. Child labour is forbidden under the age of twelve. In factories, certificates of fitness for labour are required, and the Factories Acts contain educational provisions and a labour code of sanitation.

It is contended by the Committee that the employment of children of school age should be regulated, but not totally prohibited. Too early employment of children, doubtless, injures their future capacity; and no work that stands in the way of healthy growth should be allowed.

The Committee reports as follows :

"On the other hand, it has been urged that children ought not to be permitted to do any work at all. We cannot accept this view. The strongest evidence has been given us by the most earnest advocates of the regulation of child labour, tending to show that moderate work, under healthy conditions, may be, and, in most cases will be a benefit.

"Consider the case of a boy of twelve or thirteen, who lives in a poor and crowded home in a town. He is at school five and a half hours daily, on Saturdays and Sundays he is free, and he has from six to eight weeks holidays in the year. After deducting time for sleep and meals, there remain to him at least seven hours on week-days and twelve on Saturdays, Sundays and holidays, during which he has complete leisure. If the schoolrooms were open to him, and he had sufficient incentive to study, if there were everywhere public playgrounds and organized games, he might conceivably lead a life approaching that of boys of public schools—which is, at least, a healthy life, even if, in the opinion of some, the vacant hours are too long and the inducements to idleness too many. But the poor boy, if he has no work to fill up his spare time, has in most large towns only the alternative of playing or loafing in the streets or of moping in dull rooms in a crowded tenement. We think that, quite irrespective of anything he may earn, it is better for him mentally, morally and physically, to be engaged for a few hours a day in regulated labour, rather than to spend his whole leisure in the public thoroughfares or in the penny music-hall.

"This is the view taken by many of the better class artisans and labourers in large towns. Apart altogether from the question of profit, they think it best to keep their children 'off the streets' by finding them when they reach the age of eleven or twelve years, some useful employment for a few hours a day. Shop boys and errand boys come for the most part from this class, and not from the degraded and worthless class who care nothing about what happens to their children.

"Many cases have come to our knowledge which show that the boys often themselves seek the work and enjoy it. It may not be pleasanter than cricket or football; but, even apart from the money it brings, they like it better than the amusements and recreations open to them. And, even when the money earned is the incentive to work, it is not necessarily harmful. One schoolmaster, himself in theory a strong objector to child labour, told us that many of his boys earned and saved money enough to pay for an annual country holiday.

"Further, a small amount of regular employment is of itself a useful part of a boy's education. It would be well if a large number of children could at an early age be introduced to some of the practical work of the carpenter, the shoemaker, or the blacksmith; or, if this is impossible, even the running of errands, or the selling of newspapers, helps to make them alert and industrious, and prepares them for the part they have to take in after life. Mr. Chilton Thomas, whose experience in the training of the poorest classes of boys is probably unrivalled, insisted much on the importance of what he calls 'industrious education.' 'Knowledge of industry,' he says, 'has, as its complement, habits of industry. To teach a lad a trade and not to teach him to work is to confound theory with practice. It is the most refined cruelty to bring a child up unaccustomed to physical labour for even one solitary hour until he is fourteen, and then at fourteen to make him do a whole day's hard work.'

"On the whole question of child labour, we agree emphatically with the views put forward in the circular of the Imperial Chancellor of Germany. . . . . He urges, on the one hand, that 'children's earnings are necessarily small, and cannot counterbalance the disadvantages if an excessive use of their small working powers,' and that 'where the kind of work is unsuitable, where it continues too long, or where it takes place at unseasonable times and in unsuitable places, it is not only a danger to the health and morality of the child, but impairs school discipline, and makes compulsory education illusory.' But, at the same time, he records his opinion that 'the employment of child labour in moderation is justifiable, in so far as it tends to accustom the children to bodily activity, to make them industrious and economical, and to preserve them, especially in cases where parents cannot exercise the necessary supervision, from laziness and other bad habits. On considerations of health, it is not only permissible, but desirable, that children should be employed in light work in agriculture and horticulture, in which they find open air activities and occupations suited to their youthful capacities.'

"We have come, therefore, to the conclusion that what is required is not the total prohibition of school child labour, but its regulation, and in this we are in substantial accord with all the witnesses who gave evidence; even the two or three witnesses who deprecated any labour being done by children of school age admitted that their view was rather ideal than practicable. We, however, do not believe that the true ideal is mere school education up to fourteen, and then a full day's manual work. We think that the training for manual work should begin before fourteen, just as we hold that school education should continue beyond fourteen; and that, in furtherance of this end, the employment of children in practical work should be permitted, but permitted only under carefully considered regulations."

"When the Royal Commission on Technical Education was appointed, and began to inquire into the condition of elementary education, a good many people said what had the Technical Education Commission to do with elementary education, and now the same people are saying, let us introduce technical education into our schools, so as to enable our people to compete with those of other countries. This only serves to indicate the confusion of thought I have already referred to. The Commission inquired into elementary education because the members knew perfectly well that it would be useless to make recommendations about technical education unless there was a sound elementary education to begin with, and that it would be simple folly to attempt to raise a superstructure unless there was a good foundation.

"Now, what do we hope to gain by making the various forms of manual training an integral part of the work of the elementary school?

"In the first place, we shall thereby make the education of the child more complete, all round, and well balanced. Education aims, or ought to aim, at the harmonious development of all the faculties which children possess, especially such of them as are likely to be of value in the work of life. Now, there is a faculty of the hand as well as of the brain, and we can scarcely call any scheme of education satisfactory which develops the latter at the expense of the former.

"This view might perhaps be maintained, even were these faculties to some extent antagonistic, but it is greatly strengthened, if, as I shall try to show, there are grounds, both in theory and experience, for believing that manual training of a certain kind and amount promotes rather than retards advancement in the ordinary subject. In that case, there is all the more reason for regarding an education which does not include some training of the faculty of the hands as lacking in balance and completeness.

"We have, then, scientific authority in favour of the assumption that the development of the hand faculty must, in itself, have an appreciable effect on the development of the higher mental powers. But, even if we lay no stress on the physiological connexion, it still remains true that the process of manual training, by which hand faculty is developed, affords a particularly favourable field for the exercise and development of what are generally regarded as purely mental faculties. On this point we may appeal to experience. One cannot watch a group of children engaged in one of the more advanced kindergarten occupations, requiring individual work, without being convinced that the higher faculties of discrimination, selection, practical judgment, and calculation, or foresight, are being exercised to an unusual degree. Probably there is no single faculty brought into play in the teaching of the ordinary school subjects which is not exercised in an approximately equal degree in manual work.

"And when we come to the cardboard work and woodwork of the higher classes, the case for the intellectual value of manual training is strengthened. In the first place, these exercises admit of a great degree of exactness, and, hence, their disciplinary value is enhanced. In the second place, the making of each object, or model, as it is called, involves a considerable number of operations, a mistake in any one of which is likely, from the nature of the material, to be fatal. It is not like a drawing or a sum on a slate, when careless work may be effaced by a sponge, and a correction at once made. The pupil must look ahead, the nature of the material must be studied, and the effect of each single deviation from the dimensions given, and the whole work must be done over again. It is obvious that work of this kind may easily be made the means of developing in the pupil the power of close observation, power of concentrating attention, judgment, foresight, and the habit of painstaking accuracy. These qualities are not named haphazard, but are precisely those which the nature of the work is calculated to develop. It is again a valuable peculiarity of this kind of work that the pupil is, to a large extent, his own judge. A piece of work is wrong, not because the teacher says so, but because he himself sees that the thing he is making is not the thing he wants to make. It is difficult to overstate the value of the moral discipline involved in this perception."—Inspector of Manual Training, Victoria, Australia.

"It seems to be necessary to utter a note of warning with regard to the syllabus of work that is being taken up in the district High Schools. It may be safely laid down that the secondary instruction given in these schools should have a bearing on the future life of the pupils. It is now

tolerably well recognized that it is no reason in favour of choosing a subject for the school curriculum to say that it has no practical or utilitarian value, but, rather the contrary; 'bread-and-butter studies,' as they have been called, are not necessarily to be condemned because the knowledge gained is afterwards useful, but are rather to be preferred if they are pursued in such a way as to train the intelligence of the pupil, and to lead him to think about those things that he will have to handle in the future. There is too much tendency at present in the district High Schools to give the secondary pupils a little Latin or French and a little elementary algebra or Euclid, and to avoid science and manual and commercial training. The aim in view in establishing district High Schools will probably be gained if these schools give the pupils a good taste for standard English literature, a thorough training in ordinary English composition and in arithmetic and mensuration, and such knowledge of history and geography as will enable them to understand better their duties as citizens of the Empire; adding thereto a course in elementary science, in which the observations and experiments are carried out by every pupil for himself, and a suitable course of manual work, or of commercial work, where local conditions demand it. These essentials being secured, other subjects may be taken up if room can be found for them, and if among these subjects a foreign language is included, by all means let it be a modern one, and let it be studied so far thoroughly that some real knowledge of the language, not merely of its grammatical forms, is acquired. The grants for manual instruction (including practical science) under the Manual and Technical Instruction Act are payable to school classes in addition to the special district High School grant, so that there is no excuse on the ground of expense for the comparative neglect of these subjects. There is no reason why any of our district High Schools, or, indeed, any of our secondary schools, should take as their model the lower forms of an old English grammar school. It is true that the newer subjects require greater skill and a larger amount of preparation on the part of the teacher; but it cannot be supposed that the teachers of the colony are not as skilful as those of other countries, or are less willing to devote themselves with energy to a task whose realization may enable their pupils 'to travel throughout life by day instead of by night.'

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"During the year steady progress has been made in the formation of adult classes for technical instruction, and there has been a large increase —more than fivefold—in the classes for manual instruction in Public Schools, principally in the direction of introducing into the work of the preparatory classes and into the lower standard classes exercises based upon kindergarten methods. This feature is sound, as far as it goes, as it seems to show that the spirit of the new movement is being rightly understood, for the change indicated by the introduction of hand-work into the school is not one affecting the mere details or machinery of school work, but is more fundamental in its character. Changes that affect only the externals of the school system, or only increase the number of disconnected subjects in the school syllabus, are sure to turn out in the end to be mere temporary devices. It has been the fashion to speak of that portion of a man's education that he receives at school as a preparation for life; in truth, a man's education goes on throughout his whole life, and the time spent at school is not merely a preparation for life, it is a part of life itself. If the manual dexterity and the regular and easy co-ordination of hand and eye and brain that lead to the development of skill in the workman or the engineer, the artist or the surgeon, be not developed in youth, then there is a gap between the school-life and the after-life that is unnatural and prejudicial to the

success of the adult; for there are few occupations in which some degree of manual skill is not at one time or another useful, and none in which men or women can afford to be without that all-round training of the mind that can be obtained only by combining the exercise of the muscular activities with that of the observation, reason and memory. The instincts of the child herein guide him aright; he is constantly examining objects and seeking for some fresh outlet for his muscular activities. (As every instinct corresponds to some reality, no instinct should be overlooked; but every instinct should either be trained or be guided aright in the years of childhood.) These instincts are not such as mark the brute, but belong to the higher human intelligence, and they must, therefore, be taken seriously as indications of undeveloped powers, which need to be directed and disciplined, not suppressed, until they appear as scientific habit and manual skill in the youth and the adult. The new method of treatment accordingly extends not to one or two subjects of the curriculum, but, more or less, to nearly all. Besides the advantage derived from the fact that manual training brings into the school course a natural co-ordination by co-ordinating all the subjects of that course with life, its introduction into the schools gives opportunity to discover aptitudes that would otherwise perhaps be unsuspected, and to develop the pupils in such a way that they make intelligent use of this opportunity. It is evident that only a beginning can be made in the elementary school; hence the necessity for carrying on the work more completely in continuation and technical classes, and in the secondary schools and university colleges."—Minister of Education for New Zealand.

"Hitherto there has been too much tendency in educational matters to confine our efforts wholly to mental aesthetic culture. For many years we know that in the great universities of the world education meant really teaching what was specially designed to be of no use in practical life. It consisted largely of the great classics of Greece and Rome, which, undoubtedly, embodied sentiment which will last as long as the human race, and which were useful for study and investigation. The boy's time was confined to those admirable monuments of classical learning; but for a long time education has been confined too much in that direction, and has dealt with the merely intellectual and aesthetical. But gradually in Europe, in all the advanced schools of England, and more emphatically in America, there has been a wide departure from that principle; and an intelligent, earnest, and successful attempt has been made to conduct this intellectual training to useful and industrial purposes in after life. These purposes are various. There is the professional life, law, medicine, literature, and art. These are all useful, and not to be looked down upon or despised in any way. But there are also wide spheres of usefulness which make great demands on intellectual culture in developing the industrial resources of the nation. If these things have been considered beneath the vision of the intellect, it has been because they have not been intellectually studied and pursued. Take what is considered the commonest occupation of all—agriculture. There is no calling which makes greater demands for intelligence, both in the obtaining of information and knowledge and in following it out. Efforts have been made to direct this intellectual culture in England, the Continent, America, and Germany, and they have been crowned with success.

"In the schools where these courses have been pursued they have been found to produce two great results. One is that they enable the young people, when they afterwards go out into the business and industrial life, to successfully compete with the other nations of the world in those industrial fields which require great knowledge, skill, artistic development, and

intelligence. Some of the simplest things that are taught in these schools —as, for example, drawing—some of these things are found to be the foundation of the industrial success of the young people afterwards.

"Another valuable result of these efforts to which I am alluding, has been this, that they have turned the attention of the young people who are brought up in these schools towards the industrial side of life, as well as the merely professional side. We all know how malleable young people are, and how they get their ideas from what they see around them. If we bring up a race of people wholly with the idea of the professional and the artistic, we entirely diverge them from the useful and highly cultivated side of industrial life.

"It is found in these continental countries, in England, and especially in America, that this industrial training has a great effect in giving an impetus to the minds and desires and ambitions of the young in an industrial direction. What a great and noble idea is that of the dignity of labour! It is an idea essentially to be grounded in the mind of any people which desires to become a great nation.

"Another great result has been found to follow from the industrial efforts of those nations of which I speak, and of which I have had an opportunity of informing myself. The Government of Washington some years ago called for a report from all the schools where industrial and technological training was carried out. They called for a report as to what effect it had on the character and dispositions and industry of the children, and, with scarcely an exception, the reply was that the industrial and technological training made them distinctly better boys and girls than they were before. It developed a state of character which is not developed merely by book-learning. It developed in them that self-reliance, industry, and devotion which is so essential to success in life. Therefore, there is an advantage gained by the mere training itself, irrespective of the results which it brings. I have seen, somewhere, tersely expressed the idea I am endeavouring to convey—'The boy who is able, skilfully and intelligently, to put together and frame a desk, is better able to use the desk he has framed than he was before.'"—Sir Henry Wrixon, M.C.L.

Technical Instruction in Ireland.

In the majority of secondary schools, according to the Report, the curriculum has been so hampered by the exigencies of examining authorities and of examinations, that the teacher has been compelled to devote undue attention to storing the minds of the students with facts for reproduction at the expense of the time which should be devoted to stimulating their reflective powers and making them think. The outcome of the system is that the boys who learn science do not acquire the power of original, or even of accurate, logical thought, and that those who do not learn science have no belief in its practical value. In after-life, those who enter upon industrial pursuits too often regard science with distrust, and, to some extent, this distrust is merited, owing to the insufficient preparation and training of those who offer themselves for responsible posts in scientific industries.

The Report contends that the science teaching in secondary schools is valuable mainly for its mental training—its educational value. For scientific instruction, reliance must, it is stated, be placed chiefly on the subsequent years of University education. Here the need for providing increased and more accessible opportunities for the young chemist, electrician, and engineer is very evident. Part of this provision is being made in the evening

work in many schools. It would be very satisfactory if this side of the evening schools were taken advantage of by a larger number of students, but, whatever development may take place in the evening work, there is a consensus of opinion that the highest grade of technical education must be carried on in an institution of University rank, open during the day. The few hours which can be given in the evening, by those engaged in business during the day, are insufficient for training in research, and the attempt to devote these hours to research work necessitates excessive mental strain, which we cannot expect or desire to see widely incurred.

Dr. W. T. Harris, Commissioner of Education, Washington, says :

"I certainly think that the working class, in proportion as it becomes educated, knows its rights and privileges as members of the community, and that more discontent is created, and more irritation grows up between capital and labour. I think that the hatred of capital which prevails among many individuals of the labouring population is due to the fact that capital has not undertaken efficiently the political education of the labouring class. If capital showed in a simple and clear manner how its employment in the community for the promotion of manufactures and commerce cheapens the cost of the necessities and of the luxuries to all consumers, and that it makes the employment of the wage-earner more constant, and if it showed that the invention of machinery thereby increases the amount of productions of all kinds that can be purchased by the consumers, and, also, that it has rendered possible a change of vocations from the mere drudgery of producing raw materials or manufacturing coarse goods up to the skilled industries wherein the wage-earner doubles and trebles his wages, I think that a more healthful popular opinion with regard to capital would come to exist in the minds of the workers. Capital owes it to itself to make its usefulness to the whole people as plain as a lesson in elementary arithmetic. It ought to teach, for one thing, the great service to the community of combinations made by that class of persons known as captains of industry. The creation of a railroad system, the cementing of it in all its parts into one whole, the adoption of very expensive rails, engines, and cars, the perfection of supervision over the whole, so that it can reduce the cost of transportation of freight from 3½ cents a mile per ton to one seventh of that, or half a cent a mile per ton, is a prodigious benefit, showing its results in the enormous increase of value of farms in the North-west, and, on the other hand, a corresponding decrease in the cost of the necessaries of life in the city populations of the Atlantic coast. The invention of one man may be so greatly productive in this matter of a saving to the community that he may have added more than a billion of dollars to the wealth of the community while he has received one hundred millions for his own share. I presume that capital, in making its combinations, often becomes careless of the condition of the workingmen of the United States. But capital certainly neglects its best interests when it comes to neglect the enlightenment of the labourer as to the actual function of large business combinations in the improvement of the condition of the people.

"I think that general education is very important for the masses of the people, and, perhaps, sufficient for them; but there should be enough industrial schools to enable any person in the community to learn all that a school can teach regarding the main industry of his community—the working in wood and iron, in market gardening, and such matters as form the staples of industry. There are three classes of weaklings in society—the weakling in thrift, who produces pauperism; the weakling in morals, who is responsible for the production of crime, and, third, the weakling in intellect, who fills the asylums of the insane and feeble-minded. The weaklings

of society need nurture more than they need justice. Justice imprisons them after they have broken the laws of the State. Nurture seeks them out, especially while of school age, and gives them special training with a view to make them useful, instead of harmful, to the community. The principle of civilization which comes to us from Rome makes competition the basis of individual success in life. This is a higher idea than communism or socialism, but it is not adapted to the weaklings of society. The third class of weaklings need the patriarchal form of civilization; they must not be given so much freedom as the normal class of citizens; they must be taken in hand by schools and by special organizations devoted to charity. The Roman competitive system is good for the highest development of the individuality of men, but it presupposes a basis of pride of character, ambition and fortitude. Where there are only weaklings in thrift and morals (especially on the side of self-indulgence) and in intellect (the slums of great cities, for instance), the competitive system crushes rather than aids.

" . . . . . I should say that the manual training school, as it exists at present, is in an experimental stage. It is an important experiment, but it has not solved all the problems, nor has it shown conclusively that the French, and Belgian system of special industrial schools is not preferable, on the whole. The most obvious reason in behalf of the manual training school as it exists is that this is an age of machinery, and it is well to have each individual know something about woodwork and ironwork, for the sake of general intelligence as regards the management of machines, or of the art of cookery. For this, knowledge of machines is useful every day; and a knowledge of cooking is a knowledge which makes palatable and nutritious the raw material of food which is apt to be wasted in a community where only a few of the women know how to make palatable and nutritious viands."

XI. Some Educational Problems of a Democracy.

It is well for nations, as for individuals, to pause once in a while to " take stock " of the results accomplished along the various lines of national effort. To the people of the United States, the recent address of President Eliot, of Harvard University (portions of which are given below), came like a bolt from the blue. Many of the failures of democracy, he attributes to inadequate preparation in the schools for the duties of citizenship. Several other extracts are given, dealing with the same general question from different standpoints.

Dr. Sadler, the distinguished Director of Special Enquiries and Reports in the English Education Department, in a recent address, used the following words:

" Education has constantly to readjust itself, in order to guard against new dangers which arise through the disintegration of older habits of thought and ways of life. It is so eminently a national thing that no country can with advantage directly imitate the educational system of another country. Each nation must needs build up its own system, in accordance with its own traditions and national needs."

President Eliot's Address.

" For more than two generations we have been struggling with the barbarous vice of drunkenness, but have not yet discovered a successful method of dealing with it. The legislation of the States has been variable and, in moral significance, uncertain. . . . .

"This is an accusation, not against the moral disposition of the majority of the people, but against their reasoning power, and it is precisely that reasoning power which good schools ought to train.

"The persistence of gambling in the United States is another disappointing thing to the advocates of popular education, for gambling is an extraordinarily unintelligent form of pleasurable excitement.

"It must be confessed that the results of the universal suffrage are not in all respects what we should have expected from a people supposed to be prepared at school for an intelligent exercise of the suffrage. We have discovered from actual observation that universal suffrage often produces bad government, especially in large cities.

"It is a reproach to popular education that the gravest crimes of violence are committed in great numbers all over the United States, in the older States as well as in the new, by individuals and by mobs, and with a large measure of impunity. The population produces a considerable number of burglars, robbers, rioters, lynchers, and murderers, and is not intelligent enough either to suppress or to exterminate these criminals.

"The nature of the daily reading matter supplied to the American public, too, affords much ground for discouragement in regard to the results thus far obtained by the common schools. Since one invaluable result of education is a taste for good reading, the purchase by the people of thousands of tons of ephemeral reading matter, which is not good in either form or substance, shows that one great end of popular education has not been attained. A similar unfavourable inference concerning popular education may be drawn from the quality of the popular theatres of to-day. . . . .

"That labour strikes should occur more and more frequently, and be more and more widespread, has been another serious disappointment in regard to the outcome of popular education. As we have all seen lately, the strike is often resorted to for reasons not made public, or, at least, not made public until after the strike has taken place. The industrial wars which so seriously diminish the productiveness and prosperity of the country, are evidences that the common schools have grappled unsuccessfully with the tremendous problem put before them, and this remark applies just as much to the employers as to the employed. When I use these industrial conflicts to illustrate the inadequacy of American schools, I am impugning not the motives of the combatants, but their intelligence, an intelligence which such education as the country supplies has left seriously defective.

"The life for which the American schools should now prepare their pupils is an utterly different life from that for which the schools were preparing the children forty years ago, or even twenty years ago.

"The whole world has been made over since 1850, and with many new powers for good, there have come in many new powers for evil. The American schools and colleges have had to readjust themselves incessantly to these sweeping changes in the condition of society; and it is not to be wondered at if they have often failed to keep pace with the raised steps of this wonderful transformation.

"Is it not plain that, if the American people were well-to-do, they would multiply by four or five the present average school expenditure per child and per year? That is, they would make the average expenditure per pupil, for the whole school year in the United States, from eighty to one hundred dollars for salaries and maintenance, instead of $17.38, as now. Is it not obvious that, instead of providing a teacher for forty or fifty pupils, they would provide a teacher for every ten or fifteen pupils? Would there not be a play-ground around every school-house? If the American people

thought they could afford it, would not a school-house be kept in as perfect sanitary condition as a hospital?"

"The Outlook," re Pres. Eliot's Address.

"Industrial conflicts must be settled ultimately by reason; yet the endeavour is often made to settle them by force—that is to say, by inflicting pecuniary losses, physical and moral injury, and spreading confusion and alarm. Education ought to be carried far enough to make men understand that such conflicts are to be settled by intelligence and not by force. Systematic education in this country stops far too soon for millions of children; in cases of millions of adults, the method of earning their livelihood becomes automatic, and mental growth is arrested. If popular education is to realize the expectations which it has awakened, and to promote effectively public righteousness and public welfare, it must be far more thorough ; and in order to be thorough, much larger amounts of money must be spent upon it."

"What is the nature of the education given in the elementary schools? What does it do for the people?

"The first and most important thing, it seems to me, in the United States is to make everybody a reader. Each person of a proper age should be able to write and read. The illiterate person is not able to work by himself, except in the simplest kinds of employment. He requires constant direction from a 'boss.' The person who can read and write can follow written or printed directions, and can be held responsible to do good work when he is not under immediate supervision. More and more it happens that the work of a community gets to be of such a kind as to demand in the labourer a knowledge of reading and writing. An illiterate man cannot deliver the orders of a grocery store or market. He must be able to read the names of the customers and the names and numbers of the streets when they are to be found. He cannot correct any errors in his order unless he is able to make a memorandum of the errors.

"But it is still more important for a free government that its inhabitants are able to read and write. The free government must be a government chiefly of popular opinion, and popular opinion cannot govern effectively except through the newspaper and the book. There must be a means by which the individual learns every day to know the opinions of his fellowmen near and far. He interprets the opinion of his fellow-citizens whom he meets from day to day by the opinion of surrounding communities, made known to him through the newspaper. Again, he interprets the public opinion of his State by the public opinion of the other States. He interprets the opinion of his nation by the public opinion of foreign nations. Thus there goes on in the mind of each citizen a comparative study of public opinion, the readjustment of local opinion and sentiment to the aggregate of public opinion and sentiment of States and nations. The general public opinion of the world is a kind of 'writing on the wall,' in which the individual, or the particular section, sees that local or partial views are weighed and approved or else found wanting."—Dr. Wm. T. Harris.

"Democratic education should also inculcate on every child the essential unity of a democratic community, in spite of the endless diversities of function, capacity, and achievement among the individuals who compose the community. This is a doctrine kindred with that just mentioned, but not identical. It is a doctrine essential to diffused democratic con-

tentment and self-respect, but materially different from the ordinary conception of equality of condition as a result of democracy; for unity is attainable, while equality of condition is unnatural and unattainable. The freedom and social mobility which characterize the democratic state permit, and, indeed, bring about striking inequalities of condition; and if the surface of democratic society should be levelled off any day, inequalities would reappear on the morrow, unless individual freedom and social mobility should be destroyed. The children of a democratic society should, therefore, be taught at school, with the utmost explicitness, and with vivid illustrations, that inequalities of condition are a necessary result of freedom; but that through all inequalities should flow the constant sense of essential unity in aim and spirit. This unity in freedom is the social goal of democracy, the supreme good of all ranks of society, of the highest no less than of the lowest.

"Another ethical principle which a democracy should teach to all its children is the familiar Christian doctrine that service rendered to others is the surest source of one's own satisfaction and happiness. This doctrine is a tap-root of private happiness among all classes and conditions of men: but in a democracy it is important to public happiness and well-being. In a democracy the public functionary is not a master, but a trusted servant. By excellence of service he earns not only a pecuniary consideration, but also respect and gratitude. This statement applies just as well to a letter-carrier, a fireman, or a village selectman, as it does to a high school teacher, a judge, or a governor. Democracy applies literally the precept, 'If any man would be great among you, let him be your servant.' The quality of this faithful service and its rewards should be carefully taught in school to all children of a democracy. The children should learn that the desire to be of great public service is the highest of all ambitions: and they should be shown in biography and in history how the men and women who, as martyrs, teachers, inventors, legislators, and judges, have rendered great service, have thereby won enduring gratitude and honour.

"Since it is a fundamental object of a democracy to promote the happiness and well-being of the masses of the population, the democratic school should explicitly teach children to see and utilize the means of happiness which lie about them in the beauties and splendors of nature. The school should be a vehicle of daily enjoyment, and the teacher should be to the child a minister of joy. Democratic society has already learned how to provide itself—at least, in the more intelligent communities—with open grounds in cities, and parks in suburbs, and has in these ways begun to provide directly for the wholesome pleasures of the population. It should be a recognized function of the democratic school to teach the children and their parents how to utilize all accessible means of innocent enjoyment.

"Finally, the democratic school must teach its children what the democratic nobility is. The well-trained child will read in history and poetry about patricians, nobles, aristocrats, princes, kings, and emperors, some of them truly noble, but many vile; and he will also read with admiring sympathy of the loyalty and devotion which through all the centuries have been felt by generous men and women of humbler condition toward those of higher. He will see what immense virtues these personal loyalties have developed, even when the objects of loyalty have been unworthy; and he will ask himself, 'What are to be the corresponding virtues in a democracy?' The answer is, Fidelity to all forms of duty which demand courage, self-denial, and zeal, and loyal devotion to the democratic ideals of freedom, serviceableness, unity, toleration, public justice, and public joyfulness.

The children should learn that the democratic nobility exists, and must exist if democracy is to produce the highest types of character; but that it will consist only of men and women of noble character, produced under democratic conditions by the combined influences of fine inherited qualities, careful education, and rich experience. They should learn to admire and respect persons of this quality, and to support them, on occasion, in preference to the ignoble. They should learn that mere wealth has no passport to the democratic nobility, and that membership in it can be transmitted to children only through the transmission of the sound mental and moral qualities which are its sole warrant. This membership should be the rightful ambition of parents for their children, and of children for their future selves. Every person of true quality, no matter what his station or vocation, is admitted of right to this simple democratic nobility, which home, church, and school unite in recruiting; and there are, consequently, more real nobles under the democratic form of government than under any other."—Charles William Eliot.

"Strictly speaking, there is no 'German system of education.' Neither is there an 'American system.' There is no Imperial Minister of Education in Berlin. There is no Federal Board of Education in Washington. In educational matters, the different States of the German Empire retain considerable varieties of organization and even of aim, and in America there are very great differences, both in administration and in organization, between the educational system of different States and cities. But, if we make, so to speak, a composite photograph of the progressive parts of German education and a composite photograph of the greater part of American education, there stand out in each picture certain features which are in striking contrast. These may be arranged in an antithetical form, as follows:

"In Germany, the masses of the people have very little to do with determining the course of educational policy; in America, nearly all education rests on popular control. In Germany, educational progress is guided by administrative order; in America it depends much more on free discussion. In Germany, as a rule, the keys of the position are in the hands of a strong central authority; in America, there is very great local freedom. German society is organized on a military basis; American society on an industrial. In Germany, society is still largely organized in horizontal strata; in America there is much more vertical organization and a much more open draught from the bottom to the top. Germany (and Prussia in particular) has a strong tradition in favour of direct State management of industrial and other concerns; in America (with considerable exceptions) the tradition is the other way. Germany has long possessed a highly expert, permanent civil service; with certain exceptions, American energy and ability have, until comparatively recent years, flowed in other channels. In Germany the great majority of teachers are men; in America the great majority of teachers are women.

"In Germany, the earliest stages of primary education form the part of the national system which has shown the least capacity for fruitful development; in America, those very stages have been, and are, the most progressive, the most fertile in suggestion, and the most eagerly sensitive to new ideas. In Germany, the State guards the door to all professions; in America, the professions are wide open to all. In Germany, the secondary schools are deliberately made the sole avenues to professional life; in America, the organization is far looser and less restrictive. In Germany, the secondary schools are (granted certain assumptions) the strongest element

in the whole system of national education; in America, the secondary schools, though they are making remarkable progress, have hitherto been less conspicuously successful than the primary schools and the Universities. In Germany, comparatively little is done for the higher education of girls; in America, as much is done for girls as for boys. In Germany there is, for the most part, a social gulf between the teachers in elmentary and the teachers in secondary schools; in America this gulf does not exist.

"In Germany, the secondary schools are organized almost independently of the ordinary elementary schools, without any dovetailing of curriculum, and in such a form that clever boys have, as a rule, to leave the elementary school at nine years of age in order to enter the secondary school at the beginning of its quite different curriculum; in America, the great majority of the secondary schools are deliberately organized as the crown of the primary schools, and there is no 'break of gauge' between primary and secondary education. In Germany, the basis of all education is definitely linguistic; in America, there is a strong tendency to give increased prominence to manual and practical exercises in humane education. German secondary education is still haunted by the ghost of 'general culture,' i.e., by the idea that there is a circle of varied knowledge which a youth ought to possess at the end of his secondary school-life, and the possession of which marks off in social intercourse the 'educated man' from the 'uneducated.' America has long discarded any such idea, and lays stress not on any formula of 'general culture,' but on alertness and adaptability of mind. Hence in Germany the ideal of a many-sided course of liberal education stubbornly holds its ground; in America the field is thrown open, and bold experiments in 'elective studies' have met the national taste. In Germany, educational advance comes after a long period of philosophic meditation and paper warfare; in America, one practical experiment follows another in startling succession, and the student can hardly keep up with the variety of new educational undertakings. The work of the German schools is quiet, methodical, and laboriously persistent; that of the American is restless, often hurried and effervescent. The clever German boy lives in an atmosphere of great respect for professors, and for learning as learning; the American boy has his thoughts turned from an early age to business and the needs of practical life. The German boy knows that if he stops in Germany he will have to wait a long time before he can hope for professional eminence; the American boy feels an almost boundless horizon before him, and every fibre in him is tense with a determination to make his way to the front."—M. E. Sadler.

XII. Conclusion.

The foregoing and cognate subjects are receiving the careful attention of all interested in the advancement of our schools and in the solution of the many difficult problems connected with the organization and administration of our varied educational agencies. Each succeeding year finds the field of educational effort extending in various directions, so that the proper correlation of all the educational forces must invite the sustained attention and generous co-operation of all interested in their direction and management. This is particularly true in the larger centres of population, where great industrial and commercial interests are centred. In such centres it is not uncommon to find five or six different "Boards," each controlling its own special field of operation, but without any consideration of its place in a general scheme of education, and often with narrow and exaggerated ideas of the importance of its mission. Under such a disjointed system,

apart altogether from the question of economical administration, there can be little authoritative counsel for the guidance of school patrons, with the further result that there is frequently an undue attention to this or that special side of education, according as one or another of these "Boards" possess a dominant influence with the municipal councils. It is probable that special legislation may be necessary to overcome the many evils following such want of correlation of effort.

The improvement of the professional status of the teacher continues to be a matter of the first importance. It is to be hoped that from the lengthening of the Normal School term to a full academic year there may result many of the advantages pointed out by our most prominent educationists, and sought for by our various educational associations.

Our Model Schools continue to meet an important educational necessity. The number is now, however, somewhat greater than is required. During the year the number has been slightly lessened, but until there is a further material reduction in the number, several suggestions looking to their improvement cannot be acted upon.

During the year, owing largely to economic conditions and the rapid development of our Hinterland, there has been a marked scarcity of teachers. While in nearly all other occupations the improved condition of the country has brought increased remuneration to the worker, it is to be regretted that the importance and arduous character of the teacher's work has not received a similar recognition in as full measure. Until school patrons become seized of the immense importance to any section of a really good teacher, and indicate their appreciation of his work by giving him something more than a bare living wage, the scarcity above referred to will continue, and is likely to increase. Such a condition leads to an undesirable lowering of the standard of the teaching profession, for the school must be kept open, and "temporary" certificates have to be given, often to mere boys and girls, who have neither proper academic nor professional qualifications.

Last July important amendments covering examinations and courses of study for teachers' certificates were made to the Regulations. The Part I. Junior Leaving examination, which had become inadequate as a test either of general proficiency or for promotion to higher classes, was abolished. In making Latin optional for the non-professional qualifications of the lowest grade of teachers, it was found possible to require a higher standing in the subjects essential to the Public School course.

The quinquennial revision of the courses of study for High Schools and Collegiate Institutes is receiving attention. These and many other important problems have occupied the attention of the Education Department during the past year, and it is hoped they will continue to excite the most careful attention of teachers, boards of trustees, and all interested in the education of the young.

In order to have the statistics of our High and Public Schools brought as soon as possible to the attention of the Legislature, the Annual Report is divided into Parts I. and II. The information to be given in Part II. will consist of several valuable reports, together with statistics not available until after the close of the year. This portion of the Report will also be published at as early a date as possible.

I have the honour to be, Sir,
Your obedient servant,
RICHARD HARCOURT,
Minister of Education.

Education Department, Toronto, January, 1903.

Manual Training Class, Stratford.

Domestic Science Class, Stratford.

Domestic Science, Stratford, Banquet Tables at opening, February 19, 1902.

Domestic Science, Stratford, Banquet Tables at opening February 19, 1902.

APPENDICES.

APPENDIX A.—*STATISTICAL TABLES.*

THE PUBLIC SCHOOLS.

I.—Table A.—School Population, Attendance, etc.

Counties. (Including incorporated villages but not cities or towns) etc.	School population between 5 and 21 years of age.	Pupils under 5 years of age.	Pupils between 5 and 21 years of age.	Pupils over 21 years of age.	Total number of pupils attending school.	Boys.	Girls.	Average attendance of pupils.	Percentage of average to total attendance.
1 Brant	3,810	6	3,198	...	3,204	1,714	1,490	1,753	55
2 Bruce	13,933	14	11,074	4	11,092	5,763	5,329	6,177	56
3 Carlton	9,740	29	6,705	2	6,736	3,553	3,183	3,241	48
4 Dufferin	5,146	43	4,748	2	4,793	2,542	2,251	2,097	44
5 Dundas	5,666	22	4,489	1	4,512	2,330	2,182	2,455	54
6 Durham	5,320	14	4,640	1	4,655	2,371	2,284	2,534	54
7 Elgin	7,486	24	6,220	2	6,246	3,280	2,966	3,404	53
8 Essex	10,012	17	7,284	1	7,302	3,789	3,513	3,649	50
9 Frontenac	6,581	49	5,766	6	5,821	3,079	2 742	2,446	42
10 Glengarry	5,077	7	4,070	...	4,077	2,118	1,959	1,894	46
11 Grey	15,384	67	13,294	9	13,370	6,996	6,374	6,474	48
12 Haldimand	5,078	10	3,937	....	3,947	2,124	1,823	2,418	61
13 Haliburton, N. E. Muskoka, S. Nipissing and E. Parry Sound	5,730	30	4,998	12	5,040	2.622	2,418	2,019	40
14 Halton	4,493	3	3,393	....	3,396	1,785	1,611	1,836	54
15 Hastings	13,401	23	8,960	....	8,983	4,630	4,353	4,392	49
16 Huron	14,047	11	10,897	6	10,914	5,706	5,208	6,421	59
17 Kent	9,730	46	8,365	2	8,413	4,451	3,962	4,228	50
18 Lambton	11,695	30	9,305	....	9,335	4,874	4,461	5,297	57
19 Lanark	5,598	17	4,401	1	4,419	2,247	2,172	2,324	52
20 Leeds and Grenville	10,539	50	9,042	1	9,093	4,666	4,427	4,539	50
21 Lennox and Addington	5,071	26	4,407	1	4,434	2,278	2,156	2,150	48
22 Lincoln	3,885	19	3,620	....	3,639	1,900	1,739	1,981	54
23 Middlesex	11,814	32	9,339	...	9,371	4,858	4,513	5,384	57
24 Norfolk	7,007	48	5,835	...	5,883	3,057	2,826	2,952	50
25 Northumberland	7,763	9	5,857	3	5,869	3,073	2,796	3.179	54
26 Ontario	8,117	28	7,139	2	7,169	3,856	3,313	3,707	52
27 Oxford	9,344	1	7,020	4	7,025	3,666	3,359	3,930	56
28 Peel	5,288	2	4,052	....	4,054	2,170	1,884	2,072	51
29 Perth	9,443	13	6,602	3	6,618	3,519	3,099	3,883	58
30 Peterborough	7,131	24	5,199	...	5.223	2,693	2,530	2,548	49
31 Prescott and Russell	7,773	28	5,547	2	5.567	2,856	2,711	2,643	47
32 Prince Edward	3,046	10	2,795	1	2,806	1,439	1,367	1,417	50
33 Renfrew	10.197	31	7,502	....	7,533	3,827	3,706	3,194	42
34 Simcoe and W. Muskoka	17,705	24	15,598	1	15,623	8,280	7,343	7,758	50
35 Stormont	4,954	20	4,085	..	4,105	2,133	1,972	2,062	50
36 Victoria and S. E. Muskoka	7.627	6	6,942	1	6,949	3,653	3,296	3,308	48
37 Waterloo	7,820	12	5,725	1	5,738	3,101	2,637	3,635	63
38 Welland	6,454	27	5,367	.	5,394	2,777	2,617	3,045	56
39 Wellington	12,128	17	8,361	..	8,378	4,510	3,868	4,412	53
40 Wentworth	6,452	.....	4,917	....	4,917	2,596	2,321	2,659	54
41 York	13,570	38	11,709	6	11.753	6,227	5,526	6,012	51
42 Rainy River, Thunder Bay & Algoma	5,397	20	4,518	8	4,546	2,364	2,182	2,071	45
43 Manitoulin, etc	3,477	24	2,467	4	2,495	1,240	1,255	1,296	52
44 N. Nipissing and W. Parry Sound	4,592	57	4,185	1	4,243	2,141	2,102	1,672	39
45 Moose Fort	60	....	55	...	55	20	35	30	54
Totals	354,581	1,028	283,619	88	284,735	148,874	135,861	146,558	51
Cities.									
1 Belleville	*3,000	.....	1,573	....	1,573	816	757	843	54
2 Brantford	3,320	....	2,626	..	2.626	1,335	1,291	1,895	72
3 Chatham	2,448	....	1,503	....	1.503	743	760	982	67
4 Guelph	3,699	.....	1,777	...	1.777	877	900	1,303	73
5 Hamilton	14,637	.....	8,348	...	8,348	4,194	4,154	6,225	75
6 Kingston	5,652	.....	2,688	....	2.688	1,318	1,370	2,029	75
7 London	10,350	...	5,788	...	5.788	2,900	2,888	3,900	67
8 Ottawa	17,250	5	5,018	....	5,023	2,619	2,404	3,221	64
9 St. Catharines	2,954	....	1,504	....	1.504	741	763	1,021	68
10 St. Thomas	4,269	.....	2,045	....	2,045	1,034	1,011	1,496	73
11 Stratford	2,935	....	1,518	...	1,518	783	735	1,117	73
12 Toronto	54,085	15	30,060	....	30,075	15,079	14,996	22,140	74
13 Windsor	3,747	1	2,519	....	2 520	1,303	1,217	1,716	68
14 Woodstock	1,772	..	1,642	....	1,642	822	820	1,179	72
Totals	130,118	21	68,609	....	68 630	34,564	34,066	49,067	71

* Statistics of preceding year.

THE PUBLIC SCHOOLS.—*Continued.*

I—Table A.—School Population, Attendance, etc.—*Continued.*

Towns.	School population between 5 and 21 years of age.	Pupils under 5 years of age.	Pupils between 5 and 21 years of age.	Pupils over 21 years of age.	Total number of pupils attending school.	Boys.	Girls.	Average attendance of pupils.	Percentage of average to total attendance.
1 Alliston	400		370		370	176	194	226	61
2 Almonte	935		397		397	208	189	284	72
3 Amherstburg	563		282		282	155	127	197	70
4 Arnprior	1,223		642		642	314	328	449	70
5 Aurora	454	2	344		346	165	181	222	64
6 Aylmer	479		467		467	209	258	308	66
7 Barrie	1,383		1,104		1,104	515	589	617	56
8 Berlin	3,045		1,423		1,423	762	661	1,052	74
9 Blenheim	549		403		403	216	187	276	68
10 Bothwell	233		207		207	108	99	140	68
11 Bowmanville	593		481		481	241	240	345	72
12 Bracebridge	876		668		668	349	319	421	63
13 Brampton	849		512		512	278	234	344	67
14 Brockville	2,645		1,321		1,321	646	675	893	68
15 Carleton Place	1,240		820		820	419	401	553	67
16 Clinton	475		471		471	251	220	310	66
17 Cobourg	1,117		560		560	295	265	388	69
18 Collingwood	1,991		1,333		1,333	677	656	824	62
19 Cornwall	1,099	1	632		633	337	296	418	66
20 Deseronto	1,097		659		659	323	336	439	67
21 Dresden	463		404		404	186	218	272	67
22 Dundas	729	10	546		556	274	282	382	69
23 Dunnville	540		446		446	223	223	281	63
24 Durham	450		404	1	405	205	200	232	57
25 Essex	357		332		332	151	181	200	60
26 Forest	404		305		305	144	161	214	70
27 Fort William	725		814		814	397	417	511	64
28 Galt	1,684		1,358		1,358	670	688	992	73
29 Gananoque	1,249		785		785	417	368	480	61
30 Goderich	851		661		661	328	333	462	70
31 Gore Bay	356		279	3	282	136	146	135	48
32 Gravenhurst	630		604		604	309	295	354	59
33 Harriston	476		345		345	181	164	234	68
34 Hawkesbury	708	2	162		164	88	76	97	59
35 Hespeler	649		485		485	229	256	318	65
36 Huntsville	763		560		560	288	272	321	57
37 Ingersoll	1,708		773		773	395	378	510	66
38 Kincardine	661		437		437	216	221	294	67
39 Kingsville	484	1	401		402	206	196	248	62
40 Leamington	703		572	1	573	273	300	335	58
41 Lindsay	2,065		1,102		1,102	546	556	797	72
42 Listowel	700		620		620	315	305	473	76
43 Little Current	450		235		235	110	125	109	46
44 Mattawa	530		109		109	56	53	57	52
45 Meaford	534		380		380	193	187	232	61
46 Midland	1,250		869		869	437	432	557	64
47 Milton	403		377		377	186	191	259	69
48 Mitchell	554		423		423	201	222	289	68
49 Mount Forest	617		441		441	254	187	312	71
50 Napanee	750		612		612	292	320	350	57
51 Newmarket	644		430		430	214	216	289	67
52 Niagara	277		266		266	138	128	138	52
53 Niagara Falls	596		724		724	382	342	488	67
54 North Bay	772		514	4	518	261	257	314	61
55 North Toronto	466		535		535	257	278	295	55
56 Oakville	457		353		353	176	177	210	59
57 Orangeville	960		545		545	251	294	331	61
58 Orillia	1,600		1,003		1,003	508	495	684	68
59 Oshawa	1,192		813		813	380	433	492	60
60 Owen Sound	1,977		1,567		1,567	762	805	1 123	72
61 Palmerston	560		409		409	202	207	253	62
62 Paris	909		512		512	264	248	358	70

THE PUBLIC SCHOOLS.—*Continued.*

I.—Table A.—School Population, Attendance, etc.—*Concluded.*

Towns.	School population between 5 and 21 years of age.	Pupils under 5 years of age.	Pupils between 5 and 21 years of age.	Pupils over 21 years of age.	Total number of pupils attending school.	Boys.	Girls.	Average attendance of pupils.	Percentage of average to total attendance.
63 Parkhill	331	.....	227	.....	227	114	113	156	69
64 Parry Sound	520	.....	794	1	795	399	396	417	52
65 Pembroke	1,504	.....	650	.....	650	330	320	424	65
66*Penetanguishene	826	....	626	.....	626	324	302	357	57
67 Perth	1,049	.....	541	.....	541	275	266	363	67
68 Peterborough	2,647	.....	1,675	.....	1,675	826	849	1,082	65
69 Petrolea	1,048	.....	894	.....	894	449	445	588	66
70 Picton	802	.....	600	.....	600	333	267	389	65
71 Port Arthur	1,020	.....	583	.....	583	300	283	267	46
72 Port Hope	1,201	.....	843	.....	843	430	413	584	69
73 Prescott	655	....	407	.....	407	197	210	276	68
74 Preston	494	....	370	.....	370	177	193	264	71
75 Rat Portage	1,185	.....	984	.....	984	509	475	658	67
76 Renfrew	1,025	..	443	.....	443	226	217	290	65
77 Ridgetown	596	1	484	....	485	239	246	316	65
78 St. Marys	918	.....	551	.....	551	288	263	393	71
79 Sandwich	431	.....	105	.. ..	105	50	55	51	49
80 Sarnia	2,301	.....	1,433	.....	1,433	683	750	939	65
81 Sault Ste. Marie	1,590	1	1,381	.....	1,382	741	641	753	54
82 Seaforth	632	.....	422	....	422	220	202	269	64
83 Simcoe	684	....	466	....	466	267	199	280	60
84 Smith's Falls	1,000	....	1,104	.....	1,104	538	566	734	66
85 Stayner	418	....	313	.....	313	141	172	193	62
86 Strathroy	800	.....	545	.....	545	268	277	368	67
87 Sturgeon Falls	323	.....	178	.....	178	96	82	96	54
88 Sudbury	531	....	230	.....	230	104	126	104	45
89 Thessalon	264	.. ..	247	.....	247	116	131	116	47
90 Thornbury	250	.....	171	.....	171	99	72	99	58
91 Thorold	610	.....	333	.....	333	164	169	181	54
92 Tilsonburg	499	....	427	.....	427	199	228	300	70
93 Toronto Junction	1,810	....	1,411	.....	1,411	716	695	817	58
94 Trenton	1,178	.....	710	.....	710	353	357	402	57
95 Uxbridge	324	.....	373	.....	373	177	196	226	61
96 Vankleekhill	451	.. ..	189	.....	189	105	84	137	72
97 Walkerton	619	.....	495	.....	495	228	267	343	69
98 Walkerville	497	.. ..	289	.....	289	153	136	191	66
99 Wallaceburg	999	.....	590	2	592	296	296	374	63
100 Waterloo	970	.....	630	.. ..	630	324	306	472	75
101 Welland	383	3	371	.....	374	192	182	245	65
102 Whitby	737	.....	396	.....	396	208	188	232	56
103 Wiarton	720	.....	590	.....	590	321	269	370	63
104 Wingham	901	... ..	542	.....	542	264	278	355	65
Totals	89,791	21	61,221	12	61,254	30,784	30,470	39,459	64
Totals.									
1 Counties, etc	354,581	1,028	283,619	88	284,735	148,874	135,861	146,558	51
2 Cities	130,118	21	68,609	...	68,630	34,564	34,066	49,067	71
3 Towns	89,791	21	61,221	12	61,254	30,784	30,470	39,459	64
4 Grand totals. 1901	574,490	1,070	413,449	100	414,619	214,222	200,397	235,084	57
5 " 1900	580,105	1,111	418,861	125	420,097	217,090	203,007	237,306	56
6 Increases	....	...	.....	....	.....	.....	.....	.....	1
7 Decreases	5,615	41	5,412	25	5,478	2,868	2,610	2,222	.....
8 Percentages	.....	.26	99.72	.02	.....	51.67	48.33	57	.....

* Including Protestant Separate School.

NOTE.—In addition, there were 11,405 Kindergarten pupils and 800 Night School pupils.

THE PUBLIC

II.—Table B.—Number of pupils in the

Counties (including incorporated villages, but not cities or towns), etc.	Reading.						Writing.	Arithmetic.	Drawing.
	1st Reader, Part I.	1st Reader, Part II.	2nd Reader.	3rd Reader.	4th Reader.	5th Reader.			
1 Brant	608	380	643	767	648	158	3,204	3,204	3,204
2 Bruce	2,613	1,781	1,884	2,122	2,107	585	10,863	10,971	10,704
3 Carleton	1,611	932	1,230	1,271	1,376	316	6,580	6,712	6,532
4 Dufferin	1,090	788	871	1,004	843	197	4,625	4,315	4,373
5 Dundas	1,137	725	936	712	776	226	4,464	3,501	4,385
6 Durham	853	620	1,043	993	940	206	4,655	4,649	4,636
7 Elgin	1,164	771	1,203	1,256	1,321	531	6,162	6,193	6,070
8 Essex	2,152	1,432	1,399	1,219	946	154	7,136	7,227	7,142
9 Frontenac	1,493	826	996	1,194	1,226	86	5,821	5,821	5,821
10 Glengarry	1,201	624	919	589	660	84	4,041	4,041	4,021
11 Grey	3,166	2,010	2,847	2,772	2,064	511	13,182	12,847	12,981
12 Haldimand	774	502	834	744	926	167	3,921	3,944	3,825
13 Haliburton, N. E. Muskoka, S. Nipissing, and E. Parry Sound	1,565	836	956	871	634	178	4,495	4,559	4.248
14 Halton	742	488	532	733	715	186	3,396	3,396	3,384
15 Hastings	2,489	1,547	1,819	1,591	1,235	302	8,866	8,882	8,553
16 Huron	1,700	1,373	1,982	2,518	2,495	846	10,701	10,831	10,460
17 Kent	1,837	1,245	1,671	1,591	1,493	576	8,096	8,380	8,246
18 Lambton	2,204	1,579	1,612	1,851	1,680	409	9,191	9,266	8,985
19 Lanark	1,058	696	831	917	758	159	4,419	4,419	4,419
20 Leeds and Grenville	2,173	1,226	1,577	1,777	2,005	335	8,799	8,796	8,448
21 Lennox & Addington	1,022	645	771	927	877	192	4,434	4,434	4,239
22 Lincoln	741	499	656	722	948	73	3,487	3,495	3,412
23 Middlesex	1,674	1,339	1,630	2,001	2,161	566	9,371	9,371	9,371
24 Norfolk	1,292	809	1,204	1,024	1,320	234	5,816	5,833	5 683
25 Northumberland	1,136	836	1,183	1,225	1,259	230	5,755	5,779	5.496
26 Ontario	1,471	1,055	1,257	1,442	1,633	311	6,959	6,929	6 791
27 Oxford	1,390	1,064	1,155	1,417	1,443	556	6,843	6,986	6,506
28 Peel	794	640	734	818	868	200	4,054	4,054	4,032
29 Perth	1,169	957	1,217	1,664	1,384	227	6.506	6,489	6,072
30 Peterborough	1,254	844	926	1,061	980	158	5,012	5,062	4,902
31 Prescott and Russell	1,793	906	990	975	733	170	5,176	5,424	5.182
32 Prince Edward	494	323	437	553	793	206	2,758	2,776	2,752
33 Renfrew	2,254	1,229	1,366	1,281	1,127	276	6,802	7,074	6,131
34 Simcoe & W. Muskoka	3,582	2,616	2,837	3,057	2,765	766	15,351	15,461	15,173
35 Stormont	988	598	941	720	707	151	4,093	4,067	3,978
36 Victoria & S.E. Musk.	1,483	1,082	1,408	1,492	1,239	245	6,911	6,880	6,695
37 Waterloo	1,171	931	1,348	1,354	776	158	5,482	5,639	5,329
38 Welland	1,308	776	887	1,050	1,069	304	5,351	5,339	5,265
39 Wellington	1,733	1,195	1,558	1,665	1,842	385	8,268	8,288	7,992
40 Wentworth	971	647	797	1,160	1,095	247	4 912	4,912	4,912
41 York	2,727	1,866	2,143	2,410	2,275	332	11,124	11,353	10,650
42 Rainy River, Thunder Bay and Algoma	1,397	752	923	786	602	86	4 384	4,389	4,183
43 Manitoulin, etc	666	442	460	453	425	49	2,245	2,321	2,222
44 N. Nip., W. Par. Snd.	1,450	774	785	689	475	70	3,839	4,054	3,428
45 Moose Fort	21	8	.....	13	10	3	55	55	15
Totals	65,611	43,214	53,398	56,451	53,654	12,407	277,605	278,418	270,848
Cities.									
1 Belleville	380	278	228	300	387	.....	1,573	1,573	1,573
2 Brantford	558	328	397	806	488	49	2,626	2,626	2,626
3 Chatham	333	228	341	289	312	.....	1,503	1,503	1,503
4 Guelph	317	258	248	470	338	146	1,774	1,774	1,774
5 Hamilton	1,441	1,140	1,293	2,301	1,695	478	8,348	8,348	8,348
6 Kingston	608	369	357	672	682	.....	2,688	2.688	2,688
7 London	1,026	824	1 439	1,235	1,264	.....	5,788	5,788	5,788
8 Ottawa	1,270	558	648	1,197	1,145	205	5,023	5 023	5.023
9 St. Catharines	374	227	262	384	257	.....	1,504	1,504	1,504
10 St. Thomas	564	206	422	455	398	.....	2,045	2,045	2,045
11 Stratford	225	192	274	422	405	.....	1,518	1,518	1,518
12 Toronto	5,558	3,626	6,713	6,593	5,637	1,948	30,075	30.075	30,075
13 Windsor	769	543	509	463	236	.....	2,520	2,520	2,520
14 Woodstock	409	276	312	315	330	.....	1,642	1,642	1,642
Totals	13,832	9,053	13,443	15,902	13,574	2,826	68,627	68,627	68,627

SCHOOLS.—*Continued.*

various branches of instruction.

	Geography.	Music.	Grammar and Composition.	English History.	Canadian History.	Physiology and Temperance.	Drill and Calisthenics.	Bookkeeping.	Algebra.	Geometry.	Botany.	Elementary Physics.	Agriculture.
1	3,204	2,189	2,183	851	1,553	987	1,794	152	153	146	61	39	518
2	7,154	5,385	6,938	2,802	4,551	5,629	5,038	620	527	515	180	137	1,605
3	4,331	2,929	4,306	1,819	2,742	1,907	2,703	314	341	305	310	96	916
4	2,734	3,069	2,326	1,542	1,955	1,938	3,401	258	197	217	73	78	914
5	3,660	3,012	3,159	1,143	1,530	1,937	3,174	182	201	192	91	105	802
6	3,135	1,966	2,656	849	1,150	1,157	1,128	176	173	160	88	60	369
7	4,986	2,532	4,501	1,928	2,964	3,196	3,424	539	507	506	253	145	1,575
8	4,259	3,283	3,860	1,206	2,253	5,438	3,740	130	155	150	18	65	616
9	3,539	2,168	3,125	1,400	2,107	2,036	3,116	119	62	51	30	3	625
10	2,669	832	2,320	773	971	1,099	1,227	83	82	82	26	7	341
11	9,386	6,589	8,017	2,656	5,213	8,157	5,795	511	427	395	196	119	1,579
12	2,867	2,073	2,362	1,242	1,435	1,625	1,582	211	150	67	68	47	1,048
13	3,048	1,544	2,416	926	1,419	1,207	1,902	160	156	138	36	26	194
14	2,359	1,634	2,254	957	1,593	1,385	1,807	173	171	172	36	12	836
15	5,380	4,591	5,130	1,575	2,954	4,561	5,384	640	280	261	80	29	1,234
16	8,331	6,230	7,539	3,324	5,406	3,959	4,721	863	816	802	198	212	2,170
17	5,959	5,096	5,545	2,340	3,245	3,508	4,589	562	589	598	108	101	2,049
18	5,815	5,482	6,168	2,284	3,946	4,034	5,428	344	397	390	83	80	1,681
19	2,869	1,055	2,749	1,092	1,592	1,101	2,253	156	156	164	195	90	288
20	6,276	4,663	5,790	2,691	3,441	2,937	3,728	285	282	273	42	71	1,773
21	3,050	1,343	2,656	1,458	1,903	1,920	2,077	235	155	135	40	44	683
22	2,533	1,541	2,150	1,067	1,489	1,338	1,671	120	56	47	80	77	775
23	8,073	6,456	7,618	2,925	3,907	5,001	5,238	552	539	532	88	15	2,477
24	4,174	3,961	3,643	1,787	2,031	1,935	3,151	260	212	205	77	53	1,322
25	4,239	2,119	4,185	1,220	1,714	1,776	1,850	264	217	215	42	34	555
26	4,819	3,222	4,603	2,184	2,602	2,570	3,015	331	285	251	36	2	1,455
27	4,952	2,407	4,642	2,141	2,892	2 606	2,454	574	485	452	167	105	1,219
28	2,798	1,768	2,550	1,199	1,848	1,438	2,979	202	202	202	....	.....	632
29	4,585	6,045	4,062	1,627	2,337	1,680	6.372	223	201	188	32	3	1,896
30	3,490	1,462	2,836	1,140	1,806	1,835	2,200	143	139	126	117	33	389
31	3,103	1,650	2,917	959	1,557	1,493	3,074	237	172	207	60	6	665
32	2,138	770	1,999	977	1,204	1,482	1,161	237	184	169	102	21	1,151
33	3,804	1,121	3,653	1,589	2,070	1,979	1,723	372	264	239	30	46	566
34	10,459	8,521	9,102	4,297	6,366	5,355	9,524	949	774	685	266	199	2,160
35	3,039	1,344	2,798	995	1,130	1,428	1,660	222	136	134	75	53	544
36	4 745	2,334	4,158	1,692	2,461	1,921	2,521	262	239	199	114	33	653
37	3,946	4,000	3,615	742	1,712	1,245	2,522	142	122	114	57	20	371
38	3,489	2,395	3,384	1.651	2 090	1,951	1,618	300	278	263	105	48	720
39	5,769	3,977	5,243	2,269	3,676	2,856	3,826	379	353	319	80	99	1,434
40	3,324	1,727	3,081	1,507	2,136	1,500	2,284	225	223	217	153	60	1,248
41	7,933	5,598	8,002	2,728	3,857	3,568	5,154	277	260	245	108	37	1,291
42	2,765	1,361	2,056	887	1,331	1,390	1,308	114	83	58	10	3	387
43	1,368	727	1,402	562	752	646	848	49	47	40	22	4	180
44	1,936	1,214	1,773	689	1,036	907	1,686	98	66	65	16	16	313
45	14	55	14	6	14	....	.....	..	...	.....	...	.....	.....
	192,506	133,440	175,476	71,698	105,941	107,618	135,850	13,245	11,514	10,891	4,079	2,528	44,219
1	915	1,008	817	387	687	687	1,508	.....	.....	.....	.....	.....	....
2	2,626	2,626	1,740	537	1,333	2,626	2,626	49	.....	.....	49	....	.....
3	1,190	1,503	1,190	312	601	312	1,503	.....	... .	.....	....	.....	.....
4	1,199	1,774	1,774	338	808	867	1,774	143	..	...	.....	.....	.....
5	6,849	8,157	6,907	2,414	2,902	4,859	8,348	478	478	478	1,777	663	....
6	1,853	2,688	1,947	682	1,093	1,669	2,688	.....	.....	.....	.....	.....	.... .
7	5,788	5,788	2,499	877	2,042	5,788	5,788	.. ..	.....	.....	.....	.....	.. ...
8	2,547	2,990	2,547	1,350	2,557	2,557	5,023	205	205	205	.....	.....	.....
9	903	.....	903	257	433	433	1,504	.....	....	.....	.....	.....	.....
10	1,215	.....	1,215	398	853	1,215	2,045	.....	.....	.....	.....	.....	.....
11	1,399	666	1,109	405	769	1,061	1,518	.....	.....	.....	.....	.....	.....
12	29,635	29,963	28,925	4,880	7,477	19,144	29,380	3,457	866	851	....	.....	1,784
13	1,355	2,133	1,454	282	699	2,520	2,520	....	.....	.....	.....	.....	.....
14	957	1,642	645	330	645	805	.....	.....	.....	.....	.....	....	.....
	58,431	60,938	53,672	13,449	22,899	44,543	66,225	4,332	1,549	1,534	1,826	663	1,784

THE PUBLIC

II.—Table B.—Number of pupils in the

Towns.	Reading.						Writing.	Arithmetic.	Drawing.
	1st Reader, Part I.	1st Reader, Part II.	2nd Reader.	3rd Reader.	4th Reader.	5th Reader.			
1 Alliston	68	50	60	61	61	70	370	370	370
2 Almonte	81	79	103	61	73	.....	397	397	397
3 Amherstburg	73	60	37	33	51	28	282	282	282
4 Arnprior	201	116	127	95	103	.....	642	642	642
5 Aurora	80	39	85	83	59	.....	346	346	346
6 Aylmer	85	51	114	106	111	.....	467	467	467
7 Barrie	203	162	271	252	216	.....	1,104	1,104	1,104
8 Berlin	259	219	421	333	191	.....	1,423	1,423	1,423
9 Blenheim	85	87	105	52	36	38	403	403	400
10 Bothwell	39	25	36	34	32	41	207	207	191
11 Bowmanville	87	58	122	100	114	.....	481	481	481
12 Bracebridge	211	134	121	94	64	44	624	668	657
13 Brampton	105	72	81	152	102	.....	512	512	512
14 Brockville	343	151	297	323	207	.....	1,321	1,321	1,321
15 Carleton Place	199	182	118	162	159	.....	820	820	820
16 Clinton	85	92	95	120	79	.....	471	471	471
17 Cobourg	89	92	103	166	110	.....	560	560	560
18 Collingwood	370	194	251	227	291	.....	1,333	1,333	1,333
19 Cornwall	167	119	120	104	123	.....	633	633	633
20 Deseronto	235	121	153	91	59	.....	659	659	659
21 Dresden	103	73	58	63	46	61	404	404	404
22 Dundas	132	109	70	105	140	.....	556	556	556
23 Dunnville	120	93	67	77	89	.....	446	446	278
24 Durham	85	61	60	59	62	78	372	405	372
25 Essex	102	54	63	63	50	.....	332	332	332
26 Forest	66	55	73	41	70	.....	305	305	305
27 Fort William	292	144	114	105	159	.....	814	814	814
28 Galt	272	138	300	371	277	.....	1,358	1,358	1,358
29 Gananoque	166	124	168	178	149	.....	785	785	785
30 Goderich	101	83	138	206	133	.....	661	661	661
31 Gore Bay	44	42	74	42	48	32	248	280	248
32 Gravenhurst	189	105	104	94	112	.....	540	540	540
33 Harriston	56	28	95	86	80	.....	345	345	345
34 Hawkesbury	52	24	27	32	29	.....	164	164	164
35 Hespeler	79	79	135	123	60	9	485	485	485
36 Huntsville	173	73	124	102	68	20	560	560	420
37 Ingersoll	156	65	204	199	149	.....	773	773	773
38 Kincardine	80	50	94	101	112	.....	437	437	437
39 Kingsville	101	71	92	63	48	27	402	402	402
40 Leamington	147	107	131	102	86	.....	573	573	573
41 Lindsay	280	97	251	249	225	.....	1,102	1,013	1,102
42 Listowel	146	83	96	152	143	.....	620	620	391
43 Little Current	45	61	44	26	46	13	235	235	235
44 Mattawa	28	15	13	11	26	16	109	109	109
45 Meaford	105	82	72	66	55	.....	380	380	380
46 Midland	284	132	210	104	96	43	869	869	869
47 Milton	83	60	51	58	65	60	377	377	377
48 Mitchell	55	66	57	110	135	.....	423	423	423
49 Mount Forest	98	55	100	97	91	.....	441	441	441
50 Napanee	105	97	102	115	193	.....	612	612	612
51 Newmarket	122	59	91	94	64	.....	430	430	430
52 Niagara	50	21	58	56	81	.....	266	266	266
53 Niagara Falls	153	94	124	196	157	.....	724	724	477
54 North Bay	156	76	70	58	66	92	476	518	476
55 North Toronto	182	94	96	92	61	10	525	535	535
56 Oakville	70	70	66	95	52	.....	353	353	353
57 Orangeville	108	113	91	122	111	.....	545	545	545
58 Orillia	200	167	207	178	207	44	1,003	1,003	1,003
59 Oshawa	204	105	158	205	141	.....	813	813	813
60 Owen Sound	374	195	366	320	312	.....	1,567	1,567	1,567
61 Palmerston	106	65	53	76	72	37	409	409	409
62 Paris	117	83	79	143	90	.....	512	512	512
63 Parkhill	40	42	42	48	35	.....	227	227	227

SCHOOLS.— *Continued.*

various branches of instruction.—*Continued.*

	Geography.	Music.	Grammar and Composition.	English History.	Canadian History.	Physiology and Temperance.	Drill and Calisthenics.	Bookkeeping.	Algebra.	Geometry.	Botany.	Elementary Physics.	Agriculture.
1	370	370	370	242	242	300	370	40	70	70	40	70	61
2	256	.....	276	73	97	73	102	...	.....	.....	.....	.....	.....
3	185	282	185	79	112	166	282	50	28	28	12	28	.....
4	441	444	642	103	150	642	642	.....	.....	.....	.....	.....	.....
5	346	287	346	59	124	346	346	.....	.....	.....	.....	.....	.....
6	467	180	331	111	111	207	180	.....	...	.....	.....	.....	.....
7	976	1,104	976	418	380	627	1,043	553	.....	.....	.....	.....	.....
8	945	1,423	524	95	524	191	1,423	...	.....	.....	.....	...	.....
9	400	... ...	336	74	97	140	159	38	35	38	35	38	... .
10	152	.....	207	57	78	102	.....	25	41	41	41	41	.....
11	336	420	394	114	214	481	481	.....	...	...	...	.	.....
12	595	341	524	58	234	201	668	33	44	33	33	11	.....
13	512	512	512	102	254	102	512	.....	.....	.....	.....	.....	.....
14	978	1,321	1,321	207	530	1,321	1,321	....	....	...	.....	....	.....
15	612	145	612	159	251	200	522	...	...	...	.....	.... .	107
16	240	471	199	79	199	52	471	.....	.....	.....	....	..	.....
17	379	306	379	110	276	209	85	.....	.. ..	.....	.....	....	.....
18	1,021	1,333	641	488	518	1,177	1,333	....	.....	.....	.....	....	... ..
19	588	633	633	228	228	394	633	....	.....	..	.....	.....	... .
20	303	659	303	59	150	150	509	...	...	.....	.	...	.....
21	281	318	281	86	170	109	.....	61	61	61	61	61	.....
22	367	424	315	140	192	261	519	.....	.....	.....	...	.....	.....
23	215	....	215	63	109	215	112	.....	...	..	.....	...	.....
24	256	265	259	107	166	226	405	45	78	78	45	78	.....
25	132	.....	129	74	113	332	.....	.....	.....	.....	.....	....	.....
26	184	305	184	70	111	111	205	....	....	.....	....	...	.....
27	642	814	541	159	264	339	814	...	.....	. ...	.....	....	.....
28	1,026	1,358	965	234	526	1,358	274	....	....	....	.. ...	.....	.....
29	495	485	495	149	327	149	785	.....	.....	....	....	... ..	.....
30	477	.... .	477	226	226	133	.....	...	.....	....	.....	.....	.....
31	160	.....	277	93	93	48	.....	20	32	32	20	18	.....
32	310	.....	278	112	197	193	146	....	....	....	.....	.....	.....
33	289	289	289	114	167	217	217	.....	....	....	.....	.....	.....
34	88	164	88	29	61	61	88	.....	....	....	....	.....	.....
35	327	.....	192	69	192	192	.....	9	9	9	....	....	9
36	338	....	356	150	190	263	560	52	52	24	24	4	.....
37	773	773	572	207	279	773	773	.....	....	.....	...	... .	.....
38	437	.....	387	112	213	271	321	..	...	.....	..	....	.....
39	230	177	316	75	138	376	402	27	27	27	27	.....	.....
40	443	.....	443	86	188	573	.		....	.....	.....	.....	.....
41	588	692	856	357	365	586	529	.....	..	....	.....	.....	.....
42	620	620	620	143	204	143	620	...	..	...	..	.....	.....
43	129	235	129	59	85	46	235	13	13	13	13	.....	.....
44	81	56	53	42	53	26	.....	16	16	16	... .	.....	16
45	380	380	380	55	155	380	380	.	...	...	...	....	.....
46	746	869	746	139	225	773	869	43	43	43	43	.....	.....
47	351	377	377	125	183	351	377	169	60	60	....	16	.....
48	302	244	302	135	179	135	423	.	....	.....	.....	.....	.....
49	343	441	288	91	188	288	441	....	....	....	.....	... .	... ..
50	612	100	410	308	308	407	300	.. .	.....	...	.	.....	.....
51	350	430	308	64	158	158	430	.....	.....	.....	.....	.....	.....
52	195	56	216	81	137	195	185	...	.....	...	....	.....	.....
53	477	724	353	157	353	353	.....	...	...	...	.....	.....	.....
54	384	426	362	208	208	124	518	84	92	92	.....	34	... .
55	453	535	535	71	146	103	535	10	10	10	10	.....	.....
56	213	250	213	52	98	122	255	...	....	.....	.....	...	.....
57	437	546	545	111	233	233	545	.. .	....	.....	.....	.....	.....
58	803	642	429	251	429	385	111	44	44	.....	....	.....	.....
59	468	657	506	82	141	141	261	....	.....	.....	.....	.....	.....
60	998	1,567	998	312	632	632	1,567	.....	.....	.....	.....	.....	.....
61	303	300	303	109	185	72	300	37	37	37	37	37	.....
62	312	.....	233	90	179	512	.....	.....	...	.....	....	.....	.....
63	145	227	103	103	103	103	.....	.....	..	.....	.....	.....	.....

THE PUBLIC

II.—Table B.—Number of pupils in the

Towns.	Reading.						Writing.	Arithmetic	Drawing.
	1st Reader, Part I.	1st Reader, Part II.	2nd Reader.	3rd Reader.	4th Reader.	5th Reader.			
64 Parry Sound	295	140	102	109	101	48	782	782	782
65 Pembroke	180	94	106	92	178	..	650	650	650
*66 Penetanguishene	243	111	74	104	74	20	626	626	435
67 Perth	129	68	113	109	122	..	541	541	541
68 Peterborough	391	288	298	353	345	..	1,675	1,675	1,675
69 Petrolea	260	151	138	187	158	..	894	894	894
70 Picton	130	85	126	109	150	..	600	600	600
71 Port Arthur	189	156	89	86	63	..	583	583	583
72 Port Hope	211	106	180	169	177	..	843	843	632
73 Prescott	93	105	49	52	108	..	407	407	407
74 Preston	65	89	98	69	49	..	370	370	305
75 Rat Portage	286	207	128	184	90	89	984	984	984
76 Renfrew	116	58	60	108	101	..	443	443	443
77 Ridgetown	123	58	111	91	102	..	485	485	485
78 St. Mary's	106	61	100	139	145	..	551	551	494
79 Sandwich	28	11	19	30	17	..	105	105	105
80 Sarnia	435	266	231	213	288	..	1,433	1,433	1,433
81 Sault Ste. Marie	541	212	194	209	147	79	1,303	1,303	1,303
82 Seaforth	67	73	64	124	94	..	422	422	422
83 Simcoe	85	63	105	85	128	..	466	466	466
84 Smith's Falls	345	144	201	213	201	..	1,104	1,104	1,104
85 Stayner	78	42	55	59	38	41	289	313	286
86 Strathroy	101	80	125	105	134	..	545	545	545
87 Sturgeon Falls	36	27	46	25	41	3	178	178	178
88 Sudbury	60	32	37	37	48	16	230	230	230
89 Thessalon	88	42	34	25	48	10	247	247	247
90 Thornbury	40	29	18	37	35	12	171	171	171
91 Thorold	69	54	64	76	70	..	333	333	333
92 Tilsonburg	65	52	100	97	113	..	427	427	427
93 Toronto Junction	411	251	217	282	250	..	1,411	1,411	1,411
94 Trenton	206	142	147	145	70	..	710	710	710
95 Uxbridge	60	73	78	99	63	..	363	363	363
96 Vankleekhill	53	18	33	42	43	..	189	189	189
97 Walkerton	106	78	81	112	118	..	495	495	495
98 Walkerville	61	57	50	50	71	..	289	289	289
99 Wallaceburg	139	89	93	65	114	92	535	585	553
100 Waterloo	129	78	89	204	130	..	630	630	630
101 Welland	68	62	63	95	86	..	374	374	374
102 Whitby	85	56	63	82	110	..	396	396	396
103 Wiarton	135	117	118	145	75	..	590	590	590
104 Wingham	117	64	109	113	69	70	542	542	542
Totals	15,117	9,602	11,714	12,262	11,316	1,243	60,848	60,990	59,575
Totals.									
1 Counties, etc	65,611	43,214	53,398	56,451	53,654	12,407	277,605	278,418	270,848
2 Cities	13,832	9,053	13,443	15,902	13,574	2,826	68,627	68,627	68,627
3 Towns	15,117	9,602	11,714	12,262	11,316	1,243	60,848	60,990	59,575
4 Grand totals, 1901	94,560	61,869	78,555	84,615	78,544	16,476	407,080	408,035	399,050
5 " " 1900	94,742	62,482	80,565	86,699	78,912	16,697	411,533	413,321	401,877
6 Increases	..	..	..	..	..	..	..	..	..
7 Decreases	182	613	2,010	2,084	368	221	4,453	5,286	2,827
8 Percentages	23	15	19	20	19	4	98	98	96

* Including Protestant Separate School.

SCHOOLS.—*Continued.*

various branches of instruction.—*Concluded.*

	Geography.	Music.	Grammar and Composition.	English History.	Canadian History.	Physiology and Temperance.	Drill and Calisthenics.	Bookkeeping.	Algebra.	Geometry.	Botany.	Elementary Physics.	Agriculture.
64	347	282	414	208	245	282	646	35	48	48	35	48	.....
65	650	650	650	178	281	281	650	.....	.....	.....	.....	.....	.....
66	378	327	251	143	192	50	.....	20	20	20	20	7	.....
67	344	541	297	122	189	122	541	....	.....	...	.....	..	.....
68	996	658	996	230	698	698	1,135	.....	.....	.....	.....	.....	.....
69	538	894	483	158	187	894	894	.....	.....	.....	.....	.....	.....
70	600	600	600	150	260	600	600	.....	.....	.....	.....	.....	.....
71	311	73	238	57	149	149	55	....	.....	.....	.....	.....	.....
72	526	490	526	177	250	346	346	....	.....	.....	.....	.....	.....
73	314	407	407	160	160	160	407	.....	...	.....	.....	.....	.....
74	216	370	216	49	118	216	370	.....	.....	.....	.....	.....	.....
75	491	984	363	179	363	984	984	60	89	85	60	54	.....
76	327	443	269	102	167	219	443	....	.....	.....	.....	.....	.....
77	304	383	304	102	102	102	383	.....	.....	...	... ..	.. ..	.....
78	384	.....	422	145	284	145	56	.....	...	.....	.....	.....	.....
79	75	65	105	45	45	17	.... ..	.....	.....	.....	.....	.....	. ..
80	864	1,252	1,433	349	501	1,067	1,433	....	....	.....	.....	.....	. ....
81	1,102	520	520	147	395	424	253	56	79	78	56	79	.....
82	311	422	311	94	140	311	422	....	.....	.....	.....	.....	.....
83	466	466	213	128	167	318	466	.....	.....	.....	.....	.	.....
84	1,104	1,104	1,104	201	283	1,104	1,104	....	.....	....	.....	.....	.....
85	219	142	313	62	101	77	313	17	40	40	15	24	.....
86	364	545	364	75	239	545	545	..	.... .	.....	.....	.....	.... .
87	178	178	178	44	69	41	....	7	3	....	.....	2	.....
88	162	129	230	101	101	85	230	16	16	16	16	.....	.....
89	122	122	117	59	83	83	.....	18	10	10	10	10	59
90	171	171	131	47	102	171	171	12	12	12	.....	12	12
91	279	.....	298	70	163	210	.....	....	.....	.....	....	..	.....
92	362	427	362	163	230	259	427	....	.....	.....	.....	.....	.....
93	749	1,411	749	250	282	250	1,411	.....	.....	.....	.. .	.....	.....
94	362	710	504	70	215	70	640	.....	.....	.....	....	.....	.....
95	313	363	313	63	110	162	313	.....	.. ..	....	.....	.....	.....
96	136	104	118	43	85	85	189	.....	.....	....	.....	.....	.... .
97	367	285	425	118	230	230	307	....	....	.... .	....	.....	.....
98	289	289	289	71	121	289	289	...	....	.....	.....	....	
99	572	592	453	250	250	272	459	53	92	92	53	81	.....
100	469	223	469	130	211	130	... .	.....	.....	.....	.....	.....	.....
101	306	.....	306	86	181	244	86	....	.....	.....	..	.....	.....
102	396	396	396	.....	.....	396	396	.....	.....	.....	.....	.....	.....
103	365	590	234	75	234	234	371	.	...	....	.....	....	.....
104	361	403	361	139	139	69	..... .	70	70	70	38	32	.... .
	44,452	43,987	42,767	13,455	21,960	31,939	43,019	1,733	1,274	1,183	744	785	264
1	192,506	133,440	175,476	71,698	105,941	107,618	135,850	13,245	11,514	10,891	4,079	2,528	44,219
2	58,431	60,938	53,672	13,449	22,899	44,543	66,225	4,332	1,549	1,534	1,826	663	1,784
3	44,452	43,987	42,767	13,455	21,960	31,939	43,019	1,733	1,274	1,183	744	785	264
4	295,389	238,365	271,915	98,602	150,800	184,100	245,094	19,310	14,337	13,608	6,649	3,976	46,267
5	298,541	227,713	272,678	99,565	152,237	186,680	239,635	20,122	15,244	14,382	5,618	2,878	49,647
6	. ....	10,652	....	.....	... ...	.....	5,459	.....	.. ..	...	1,031	1,098	
7	3,152	....	763	963	1,437	2,580	.....	812	907	774	.....	.....	3,380
8	71	57	66	24	36	44	59	5	3	3	2	1	11

III.—TABLE C.—Teachers,

Counties (including incorporated villages, but not cities or towns), etc.	Number of teachers.	Male.	Female.	Salaries. Highest salary paid.	Average salary, Male teacher.	Average salary, Female teacher.
				$	$	$
1 Brant	70	24	46	575	413	304
2 Bruce	220	84	136	800	368	262
3 Carleton	137	42	95	600	369	276
4 Dufferin	105	19	86	650	350	265
5 Dundas	105	43	62	800	338	267
6 Durham	117	34	83	550	360	267
7 Elgin	133	47	86	500	378	264
8 Essex	134	51	83	600	362	275
9 Frontenac	151	25	126	500	281	233
10 Glengarry	84	16	68	550	318	254
11 Grey	249	85	164	750	348	259
12 Haldimand	94	27	67	700	372	279
13 Haliburton, N. E. Muskoka, S. Nipissing and E. Parry Sound	135	19	116	675	300	191
14 Halton	75	24	51	600	399	277
15 Hastings	206	60	146	750	353	264
16 Huron	221	88	133	750	375	274
17 Kent	150	45	105	600	405	305
18 Lambton	201	50	151	575	369	277
19 Lanark	132	20	112	600	284	234
20 Leeds and Grenville	261	59	202	550	296	239
21 Lennox and Addington	126	32	94	600	307	236
22 Lincoln	83	30	53	600	377	280
23 Middlesex	209	90	119	525	340	283
24 Norfolk	121	50	71	600	324	266
25 Northumberland	127	47	80	700	376	261
26 Ontario	138	53	85	800	372	278
27 Oxford	139	67	72	675	412	275
28 Peel	89	33	56	600	356	283
29 Perth	119	57	62	500	376	282
30 Peterborough	116	39	77	650	345	240
31 Prescott and Russell	115	34	81	800	380	231
32 Prince Edward	82	31	51	550	306	275
33 Renfrew	150	34	116	500	311	235
34 Simcoe and W. Muskoka	303	109	194	750	362	275
35 Stormont	88	29	59	475	309	246
36 Victoria and S. E. Muskoka	169	55	114	500	342	247
37 Waterloo	117	56	61	650	416	273
38 Welland	105	27	78	720	408	271
39 Wellington	170	64	106	600	364	280
40 Wentworth	97	38	59	550	393	287
41 York	213	91	122	700	400	287
42 Rainy River, Thunder Bay and Algoma	99	39	60	850	364	259
43 Manitoulin, etc	59	21	38	450	313	243
44 N. Nipissing and W. Parry Sound	109	18	91	575	327	235
1 Totals, counties, etc	6,123	2,006	4,117	850	359	262
2 " cities	1,239	165	1,074	1,550	915	470
3 " towns	1,041	182	859	1,100	649	315
4 Grand totals, 1901	8,403	2,353	6,050	1,550	421	306
5 " " 1900	8,395	2,518	5,877	1,500	404	298
6 Increases	8	.....	173	50	17	8
7 Decreases	.....	165	.....	.....	.....	.....
8 Percentages	.....	28	72	.....	.....	.....

NOTE.—In addition there were 118 Kindergarten teachers and 22 Night School teachers.

SCHOOLS.—*Continued.*

Salaries, Certificates, etc.

	Number of teachers who have attended a Normal School.	Certificates.							
		Number of certificates.	Provincial 1st class.	Provincial 2nd class	First class, old County Board.	Second class, old County Board.	Third class.	Temporary.	Other certificates.
1	52	70	12	40	.....	.....	18	.....	.....
2	86	220	16	72	.....	.....	131	1	.....
3	86	137	10	76	1	.....	50	.....	.....
4	41	105	3	38	.....	.....	64	.....	.....
5	41	105	4	37	1	.....	63	.....	.....
6	53	117	3	52	.....	1	61	.....	.....
7	62	133	8	63	.....	.....	62	.....	.....
8	50	134	5	45	.....	.....	52	32	.....
9	38	151	4	34	.....	2	77	34	.....
10	30	84	3	27	.....	.....	48	6	.....
11	86	249	7	82	1	.....	158	1	.....
12	46	94	7	39	.....	.....	47	1	.....
13	9	135	7	24	.....	.....	74	20	10
14	40	75	4	39	1	.....	31	.....	.....
15	71	206	7	64	.....	.....	134	1	.....
16	122	221	9	117	1	.....	94	.....	.....
17	67	150	2	64	1	.....	83	.....	.....
18	99	201	7	92	.....	.....	97	5	.....
19	28	132	1	28	2	.....	100	1	.....
20	67	261	6	63	.....	.....	191	1	.....
21	31	126	2	30	.....	1	89	4	.....
22	40	83	10	38	1	1	33	.....	.....
23	107	209	8	100	.....	2	98	1	.....
24	36	121	6	32	.....	2	81	.....	.....
25	74	127	6	73	.....	1	47	.....	.....
26	65	138	3	63	.....	.....	67	5	.....
27	58	139	10	50	1	.....	78	.....	.....
28	45	89	5	40	.....	.....	44	.....	.....
29	69	119	2	67	.....	.....	50	.....	.....
30	44	116	2	41	.....	.....	58	14	1
31	19	115	2	18	.....	.....	93	2	.....
32	28	82	4	24	.....	.....	47	7	.....
33	19	150	.....	19	.....	1	102	28	.....
34	90	303	14	79	.....	.....	207	3	.....
35	28	88	3	25	.....	2	58	.....	.....
36	48	169	.....	47	.....	.....	111	11	.....
37	72	117	8	65	.....	.....	44	.....	.....
38	35	105	4	29	4	.....	67	1	.....
39	84	170	11	77	1	.....	80	1	.....
40	57	97	9	49	.....	.....	39	.....	.....
41	126	213	12	121	1	.....	79	.....	.....
42	31	99	6	48	1	.....	35	9	.....
43	3	59	1	4	1	.....	7	42	4
44	6	109	3	19	.....	1	53	33	.....
1	2,389	6,123	256	2,254	18	14	3,302	264	15
2	1,189	1 239	211	985	13	6	15	.....	9
3	849	1,041	134	744	15	4	131	6	7
4	4,427	8,403	601	3,983	46	24	3,448	270	31
5	4 135	8,395	575	3,742	46	22	3,819	123	68
6	292	8	26	241	.....	2	.....	147	.....
7	.....	.....	.....	.....	.....	.....	371	.....	37
8	53	.....	7.15	47.40	.55	.29	41.03	3.21	.37

THE PUBLIC

IV.—Table D.—School

Totals.	School Houses.					School Visits.				
	Number of Schools open.	Brick.	Stone.	Frame.	Log.	By Inspector.	By Trustees.	By Clergymen.	By other persons.	Total.
1 Counties, etc.....	5,274	2,217	432	2,303	322	10,625	7,671	3,405	22,195	43,896
2 Cities	169	146	18	5	.....	3,469	2,569	577	12,698	19,313
3 Towns	220	159	27	34	.....	1,984	2,280	449	3,909	8,622
4 Grand totals, 1901.....	5,663	2,522	477	2,342	322	16,078	12,520	4,431	38,802	71,831
5 " 1900.....	5,655	2,474	480	2,374	327	16,419	12,455	4,448	40,587	73,909
6 Increases.....	8	48	....	.....	.....	.....	65	.....	.....	.....
7 Decreases	.....	.....	3	32	5	341	.....	17	1,785	2,078
8 Percentages	.....	45	8	41	6	22	18	6	54	.....

SCHOOLS.—*Continued.*

Houses, Prayers, etc.

	Maps and Globes.		Examinations. Prizes.		Lectures.			Trees.					
	Number of maps.	Number of globes.	Number of public examinations.	Number of schools distributing prizes or merit cards.	By Inspector.	By other persons.	Total.	Number of trees planted on Arbor Day.	Number of schools using authorized Scripture Readings.	Number of schools opened or closed with prayer.	Number of schools using the Bible.	Number of schools imparting religious instruction.
1	42,931	4,574	2,184	428	1,191	178	1,369	9,713	3,105	5,091	2,144	872
2	7,696	254	191	95	5	13	18	‡	58	169	142	5
3	2,776	309	74	30	54	53	107	213	100	214	119	5
4	53,403	5,137	2,449	553	1,250	244	1,494	9,926	3,263	5,474	2,405	882
5	54,054	5,056	2,558	583	1,250	267	1,517	9,892	3,232	5,467	2,293	900
6	.....	81	.....	.....	.....	.....	.....	34	31	7	112	.....
	651	.....	109	30	.....	23	23	.....	.....	.....	.....	18
7	†9.44	†.91	.....	10	84	16	.....	.....	58	97	42	15

‡ Shrubs, 30; plants, 14,210; bulbs, 5,660.

† To each school.

THE PUBLIC
V.—Table E.—

Counties (including incorporated villages but not cities or towns), etc.	Receipts			
	Legislative grants.	Municipal grants and assessments.	Clergy reserve fund, balances, and other sources.	Total receipts for all Public School purposes.
	$ c.	$ c.	$ c.	$ c.
1 Brant	2,423 00	27,160 41	21,992 77	51,576 18
2 Bruce	7,938 00	78,031 40	35,928 25	121,897 65
3 Carleton	4,780 00	49,137 38	17,443 75	71,361 13
4 Dufferin	3,245 00	35,731 83	17,236 56	56,213 39
5 Dundas	3,262 50	35,755 27	10,372 74	49,390 51
6 Durham	3,336 00	41,137 35	16,926 62	61,399 97
7 Elgin	4,713 00	47,087 52	29,855 46	81,655 98
8 Essex	5,004 00	52,597 89	21,486 69	79,088 58
9 Frontenac	3,972 00	38,155 71	15,136 00	57,263 71
10 Glengarry	2,633 00	25,678 48	9,131 63	37,443 11
11 Grey	8,654 00	86,052 62	28,541 46	123,248 08
12 Haldimand	3,104 00	33,057 09	14,449 98	50,611 07
13 Haliburton, N. E. Muskoka, S. Nipissing and E. Parry Sound	10,982 00	27,593 48	13,247 30	51,822 78
14 Halton	2,752 00	25,501 27	17,546 60	45,799 87
15 Hastings	7,572 00	59,028 87	31,147 38	97,748 25
16 Huron	8,206 00	85,397 61	43,239 66	136,843 27
17 Kent	6,413 00	56,682 07	47,337 26	110,432 33
18 Lambton	6,647 00	71,848 52	32,983 06	111,478 58
19 Lanark	4,165 00	34,978 55	14,138 33	53,281 88
20 Leeds and Grenville	6,833 00	77,363 64	27,344 66	111,541 30
21 Lennox and Addington	3,675 00	35,463 09	15,862 23	55,000 32
22 Lincoln	2,781 00	32,923 21	15,339 00	51,043 21
23 Middlesex	7,239 00	79,427 94	39,602 97	126,269 91
24 Norfolk	3,861 00	39,929 16	27,954 76	71,744 92
25 Northumberland	4,343 25	46,222 31	21,408 49	71,974 05
26 Ontario	5,482 00	52,557 95	24,364 75	82,404 70
27 Oxford	4 958 00	54,679 34	42,284 39	101,924 73
28 Peel	2,841 00	32,301 51	14,411 97	49,554 48
29 Perth	4,362 00	53,373 22	29,081 88	86,817 10
30 Peterborough	4,267 40	34,707 69	11,167 59	50.142 68
31 Prescott and Russell	4,037 00	34,212 36	14,421 50	52,670 86
32 Prince Edward	2,363 00	24,523 38	10,326 96	37,213 34
33 Renfrew	6,252 00	38,406 88	15,969 74	60.628 62
34 Simcoe and W. Muskoka	16,704 00	98,612 77	50,398 88	165,715 65
35 Stormont	2,809 00	27,695 32	7,667 35	38,171 67
36 Victoria and S. E. Muskoka	9,187 00	48,115 46	17.489 95	74,792 41
37 Waterloo	4,060 00	50,164 70	40,653 30	94.878 00
38 Welland	3,547 00	37,521 03	24,934 85	66.002 88
39 Wellington	6,249 00	62,595 55	35.510 78	104,355 33
40 Wentworth	3,646 00	33,945 89	25.594 76	63.186 65
41 York	7,236 00	83 513 67	49,037 29	139,786 96
42 Rainy River, Thunder Bay and Algoma	11,674 00	34,626 82	17,351 77	63,652 59
43 Manitoulin, etc	5,940 00	16,018 84	9,642 48	31,601 32
44 N. Nipissing and W. Parry Sound	11,875 00	23,459 69	14,118 18	49,452 87
45 Moose Fort	150 00			150 00
Totals	246,173 15	2,062,974 74	1,040,081 98	3,349,229 87
Cities:				
1 Belleville	1,137 05	11,418 83	1,519 53	14,075 41
2 Brantford	2,127 85	26,000 00	2,647 12	30,774 97
3 Chatham	1,248 00	13,064 76	1,559 42	15,872 18
4 Guelph	1,325 20	16,900 00	614 86	18,840 16
5 Hamilton	6,812 55	105,276 44	18,365 49	130,454 48
6 Kingston	2,272 20	24,877 00	3,927 75	31,076 95
7 London	5,534 60	86,125 68	20,701 26	112,361 54
8 Ottawa	4,304 75	110,431 00	36,953 59	151,689 34
9 St. Catharines	1,189 00	14,345 00	82 49	15,616 49
10 St. Thomas	1,590 50	18,957 99	969 85	21,518 34
11 Stratford	1,755 00	16,000 00	1,748 34	19 503 34
12 Toronto	25,829 70	462,076 00	54,588 24	542 493 94
13 Windsor	1,900 00	27,465 19	190 15	29 555 34
14 Woodstock	1,298 00	13,980 00	5,535 41	20,813 41
Totals	58,324 50	946,917 89	149,403 50	1,154,645 89

SCHOOLS.—*Continued.*

Financial Statement.

	Expenditure.					
	Teachers' salaries.	Sites, and building school houses.	Maps, apparatus, prizes and libraries.	Rent and repairs, fuel, and other expenses.	Total expenditure for all Public School purposes.	Balances.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	23,709 44	5,605 41	511 36	8,514 67	38,340 88	13,235 30
2	65,461 66	9,828 77	1,327 55	18,907 60	95,525 58	26,372 07
3	41,713 37	7,843 32	352 93	11,295 86	61,205 48	10,155 65
4	28,476 95	5,867 24	679 57	11,575 21	46,598 97	9,614 42
5	30,532 62	3,695 40	617 69	8,303 28	43,148 99	6,241 52
6	34,209 15	4,783 06	969 73	7,947 63	47,909 57	13,490 40
7	40,601 79	2,538 68	676 47	13,942 96	57,759 90	23,896 08
8	43,034 32	2,228 92	618 33	13,597 92	59,479 49	19,609 09
9	33,021 74	2,728 38	1,147 01	8,082 54	44,979 67	12,284 04
10	22,435 76	2,730 75	301 51	4,676 91	30,144 93	7,298 18
11	71,259 07	5,505 28	1,326 24	22,501 68	100,592 27	22,655 81
12	27,924 41	2,146 14	166 15	7,071 34	37,308 04	13,303 03
13	28,852 55	5,974 95	1,041 14	8,908 42	44,777 06	7,045 72
14	24,009 19	3,828 38	249 94	8,356 17	36,443 68	9,356 19
15	56,068 73	7,749 03	2,349 20	13,180 94	79,347 90	18,400 35
16	69,411 19	15,437 40	2,271 29	22,236 91	109,356 79	27,486 48
17	48,930 06	6,374 76	781 17	17,367 18	73,453 17	36,979 16
18	60,428 29	3,822 27	985 06	19,517 70	84,703 32	26,775 26
19	30,974 04	2,292 97	194 69	8,954 18	42,415 88	10,866 00
20	65,701 32	4,711 79	3,882 29	17,417 70	91,713 10	19,828 20
21	31,621 78	2,533 13	922 32	8,713 33	43,790 56	11,209 76
22	26,658 26	1,844 76	241 04	7,441 49	36,185 55	14,857 66
23	64,528 73	4,269 40	1,044 78	24,630 84	94,473 75	31,796 16
24	35,334 29	1,991 47	414 62	8,559 45	46,299 83	25,445 09
25	38,894 29	2,176 55	610 65	15,172 80	56,854 29	15,119 76
26	43,642 64	5,683 81	1,508 35	15,441 68	66,276 48	16,128 22
27	47,389 72	5,567 12	389 69	12,987 87	66,334 40	35,587 33
28	27,065 94	1,800 92	1,099 77	8,795 25	38,761 88	10,792 60
29	38,622 59	16,588 28	1,765 88	12,962 59	69,939 34	16,877 76
30	31,460 07	1,410 40	341 19	8,917 32	42,128 98	8,013 70
31	29,045 02	6,618 63	280 45	7,470 19	43,414 29	9,256 57
32	22,694 58	903 12	990 39	5,366 37	29,954 46	7,258 88
33	37,460 51	3,723 92	732 89	8,628 21	50,545 53	10,083 09
34	90,014 31	9,556 95	2,582 10	22,738 66	124,892 02	40,823 63
35	23,904 62	4,065 60	141 17	5,569 80	33,681 19	4,490 48
36	44,991 17	4,679 81	518 11	11,871 35	62,060 44	12,731 97
37	40,208 02	5,249 51	806 53	11,810 75	58,074 81	36,803 19
38	31,986 21	2,762 68	312 77	10,186 06	45,247 72	20,715 16
39	53,578 87	4,993 66	960 48	21,542 12	81,075 13	23,280 20
40	31,654 07	2,922 81	841 54	9,730 29	45,148 71	18,037 94
41	71,100 64	8,796 80	1,790 70	26,043 45	107,731 59	32,055 37
42	27,109 22	12,349 85	1,188 09	12,632 14	53,279 30	10,373 29
43	15,180 65	3,781 34	384 80	4,853 88	24,200 67	7,400 65
44	24,402 37	7,379 98	1,075 91	10,000 26	42,858 52	6,594 35
45	150 00	.....	.....	.....	150 00	.....
	1,775,454 22	227,343 40	41,343 54	544,422 95	2,588,564 11	760,665 76
1	9,675 06	.....	87 99	2,968 77	12,731 82	1,343 59
2	20,113 63	181 03	1,645 72	8,834 59	30,774 97	.....
3	10,408 72	217 40	60 10	5,185 96	15,872 18	.....
4	13,527 03	.....	114 26	4,917 19	18,558 48	281 68
5	78,740 00	7,147 36	5,570 49	32,583 61	124,041 46	6,413 02
6	20,165 89	.....	1,718 61	9,192 45	31,076 95	.....
7	64,406 01	22,094 03	.....	25,187 26	111,687 30	674 24
8	53,881 10	32,886 14	3,011 96	27,407 91	117,187 11	34,502 23
9	11,868 77	.....	.....	3,713 99	15,582 76	33 73
10	16,378 87	.....	13 10	4,527 99	20,919 96	598 38
11	12,276 05	.....	1,625 21	5,602 08	19,503 34	.....
12	359,788 42	51,660 49	12,610 33	115,851 25	539,910 49	2,583 45
13	19,596 52	.....	155 87	9,551 43	29,303 82	251 52
14	11,609 85	.....	1,199 37	3,429 66	16,238 88	4,574 53
	702,435 92	114,186 45	27,813 01	258,954 14	1,103,389 52	51,256 37

THE PUBLIC

V.—Table E.—

Towns.	Receipts. Legislative grants.	Municipal grants and assessments.	Clergy Reserve fund, balances, and other sources.	Total receipts for all Public School purposes.
	$ c.	$ c.	$ c.	$ c.
1 Alliston	219 00	1,772 55	524 36	2,515 91
2 Almonte	277 00	4,063 79	660 80	5,001 59
3 Amherstburg	131 00	2,865 00	221 90	3,217 90
4 Arnprior	295 00	3,758 30	1,977 22	6,030 52
5 Aurora	185 00	2,450 00	772 08	3,407 08
6 Aylmer	300 25	4,151 70	236 17	4,688 12
7 Barrie	792 00	9,554 03	426 25	10,772 28
8 Berlin	1,196 40	14,418 35	212 10	15,826 85
9 Blenheim	266 00	3,675 54	9,343 38	13,224 92
10 Bothwell	103 00	1,536 70	346 46	1,986 16
11 Bowmanville	350 00	4,550 00	272 14	5,172 14
12 Bracebridge	784 00	9,458 55	195 09	10,437 64
13 Brampton	497 00	4,000 00	518 56	5,015 56
14 Brockville	1,058 00	13,000 00	545 13	14,603 13
15 Carleton Place	496 00	4,700 00	1,061 60	6,257 60
16 Clinton	450 00	3,000 00	829 86	4,279 86
17 Cobourg	372 00	5,600 00	628 10	6,600 10
18 Collingwood	688 00	9,200 00	804 79	10,692 79
19 Cornwall	452 00	5,028 25	3,039 08	8,519 33
20 Deseronto	466 00	5,259 86	907 00	6,632 86
21 Dresden	195 00	2,800 00	5,274 70	8,269 70
22 Dundas	184 00	4,612 55	267 28	5,063 83
23 Dunnville	261 00	2,525 00	18 94	2,804 93
24 Durham	313 00	2,682 90	456 93	3,452 83
25 Essex	173 00	1,780 14	244 69	2,197 83
26 Forest	344 00	2,549 65	244 17	3,137 82
27 Fort William	530 00	8,204 98	1,491 46	10,226 44
28 Galt	1,078 55	13,350 00	406 70	14,835 25
29 Gananoque	593 00	5,175 17	190 59	5,958 76
30 Goderich	592 00	4,673 51	300 00	5,565 51
31 Gore Bay	523 00	1,302 00	427 86	2,252 86
32 Gravenhurst	229 00	4,415 78	.....	4,644 78
33 Harriston	216 00	2,547 00	217 09	2,980 09
34 Hawkesbury	49 00	1,600 00	330 45	1,979 45
35 Hespeler	344 45	3,550 40	229 48	4,124 33
36 Huntsville	203 00	3,900 00	190 32	4,293 32
37 Ingersoll	705 90	6,052 00	472 39	7,230 29
38 Kincardine	413 00	3,337 00	682 55	4,432 55
39 Kingsville	169 00	3,180 00	4,227 88	7,576 88
40 Leamington	378 00	3,672 00	97 07	4,147 07
41 Lindsay	856 00	9,873 90	181 61	10,911 51
42 Listowel	310 00	3,340 00	3 78	3,653 78
43 Little Current	130 00	1,368 00	833 11	2,331 11
44 Mattawa	83 00	770 65	160 06	1,013 71
45 Meaford	383 00	2,660 00	55 78	3,098 78
46 Midland	277 00	4,317 35	957 26	5,551 61
47 Milton	308 00	2,756 02	986 35	4,050 37
48 Mitchell	407 00	2,600 00	368 23	3,375 23
49 Mount Forest	420 00	5,215 00	117 59	5,752 59
50 Napanee	512 00	4,960 00	407 84	5,879 84
51 Newmarket	392 00	2,500 00	490 70	3,382 70
52 Niagara	169 00	1,915 95	70 05	2,155 00
53 Niagara Falls	485 40	6,400 00	29 61	6,915 01
54 North Bay	891 00	3,801 25	968 79	5,661 04
55 North Toronto	229 00	4,075 00	138 45	4,442 45
56 Oakville	190 00	2,256 00	1,713 53	4,159 53
57 Orangeville	652 00	4,000 00	238 71	4,890 71
58 Orillia	462 00	14,600 00	138 74	15,200 74
59 Oshawa	503 00	5,950 00	448 25	6,901 25
60 Owen Sound	1,198 85	12,699 00	10,401 47	24,299 32
61 Palmerston	220 00	3,000 00	389 98	3,609 98
62 Paris	360 00	4,800 00	1,403 48	6,563 48
63 Parkhill	138 00	1,900 00	995 77	3,033 77
64 Parry Sound	908 00	8,150 00	213 22	9,271 22

SCHOOLS.—*Continued.*

Financial Statement.—*Continued.*

	Expenditure.					Balances.
	Teachers' salaries.	Sites, and building school houses.	Maps, apparatus, prizes and libraries.	Rent and repairs, fuel, and other expenses.	Total expenditure for all Public School purposes.	
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1	2,070 21	.....	65 48	360 92	2,496 61	19 30
2	3,542 69	.....	28 00	1,412 24	4,982 93	18 66
3	2,191 00	.....	40 50	895 11	3,126 61	91 29
4	3,301 25	.....	17 10	842 87	4,161 22	1,869 30
5	1,989 60	28 32	2 03	753 17	2,773 12	633 96
6	3,131 00	669 53	31 59	856 00	4,688 12	.....
7	7,845 00	265 46	69 90	2,355 06	10,535 42	236 86
8	11,071 44	.....	739 65	3,803 69	15,614 78	212 07
9	2,629 19	8,862 93	71 35	1,628 46	13,191 93	32 99
10	1,527 10	.....	19 43	409 97	1,956 50	29 66
11	4,174 00	.....	26 45	971 69	5,172 14	.....
12	2,775 72	3,045 75	44 76	1,870 19	7,736 42	2,701 22
13	3,512 23	.....	27 90	1,087 23	4,627 36	388 20
14	9,402 71	.....	.....	4,744 29	14,147 00	456 13
15	4,439 18	413 15	57 52	1,228 66	6,138 51	119 09
16	2,834 00	.....	4 00	1,231 12	4,069 12	210 74
17	4,190 00	300 61	.....	2,109 49	6,600 10	.....
18	6,845 24	498 30	100 00	2,770 45	10,213 99	478 80
19	4,592 98	.....	.....	1,680 41	6,273 39	2,245 94
20	4,438 33	.....	.....	1,006 06	5,444 39	1,188 47
21	2,572 07	.....	10 00	431 69	3,013 76	5,255 94
22	4,016 11	.....	3 30	1,004 29	5,023 70	40 13
23	2,231 76	.....	10 35	512 50	2,754 61	50 33
24	2,607 96	.....	26 25	379 92	3,014 13	438 70
25	1,806 58	.....	.....	332 29	2,138 87	58 96
26	2,340 00	.....	.....	532 50	2,872 50	265 32
27	5,208 92	54 45	68 15	4,894 92	10,226 44	.....
28	10,673 03	.....	150 00	3,801 62	14,624 65	210 60
29	4,305 00	.....	50 52	1,384 50	5,740 02	218 74
30	4,383 54	.....	.....	1,181 97	5,565 51	.....
31	1,517 18	.....	19 20	311 68	1,848 06	404 80
32	2,873 79	383 98	60 50	1,163 84	4,482 11	162 67
33	2,170 00	.....	.....	666 78	2,836 78	143 31
34	1,224 68	.....	.....	650 06	1,874 74	104 71
35	2,900 40	.....	75 57	906 29	3,882 26	242 07
36	3,080 24	.....	95 00	915 07	4,090 31	203 01
37	5,341 40	.....	57 76	1,552 57	6,951 73	278 56
38	3,103 64	.....	.....	919 33	4,022 97	409 58
39	2,425 00	4,137 65	.....	655 05	7,217 70	359 18
40	3,083 88	.....	7 30	692 75	3,783 93	363 14
41	8,007 87	.....	50 00	2,844 52	10,902 39	9 12
42	2,945 90	.....	17 15	534 06	3,497 11	156 67
43	968 75	.....	.....	195 32	1,164 07	1,167 04
44	535 03	.....	.....	403 45	938 48	75 23
45	2,520 10	.....	.....	574 62	3,094 72	4 06
46	3,920 00	237 03	153 11	922 32	5,232 46	319 15
47	2,680 53	370 80	129 24	407 12	3,587 69	462 68
48	2,715 22	24 00	61 43	393 68	3,194 33	180 90
49	2,879 08	1,700 00	.....	1,079 74	5,658 82	93 77
50	3,995 75	.....	.....	1,094 85	5,090 60	789 24
51	2,430 50	.....	.....	562 08	2,992 58	390 12
52	1,540 00	.....	10 00	475 78	2,025 78	129 22
53	5,166 75	.....	84 29	1,597 17	6,848 21	66 80
54	3,323 18	361 14	47 70	1,922 40	5,654 42	6 62
55	3,120 92	42 95	118 20	1,160 38	4,442 45	.....
56	1,865 00	.....	.....	679 69	2,544 69	1,614 84
57	3,743 06	.....	.....	969 75	4,712 81	177 90
58	6,691 71	.....	28 29	1,799 36	8,519 36	6,681 38
59	4,809 18	.....	54 85	1,530 27	6,394 30	506 95
60	10,799 00	8,900 00	.....	4,551 77	24,250 77	48 55
61	2,385 00	.....	.....	1,178 50	3,563 50	46 48
62	3,750 00	1,267 35	53 62	1,492 51	6,563 48	.....
63	1,650 00	.....	.....	409 34	2,059 34	974 43
64	4,841 41	2,898 70	199 58	882 52	8,822 21	449 01

THE PUBLIC

V.—Table E.—

Towns.	Receipts. Legislative grants.	Municipal grants and assessments.	Clergy Reserve fund, balances, and other sources.	Total receipts for all Public School purposes.
	$ c.	$ c.	$ c.	$ c.
65 Pembroke	345 00	4,719 42	26 50	5,090 92
66 *Penetanguishene	295 00	3,982 34	368 88	4,646 22
67 Perth	471 00	4,299 16	176 83	4,946 99
68 Peterborough	1,130 75	18,000 00	1,765 64	20.896 39
69 Petrolea	581 00	7,000 00	1,479 58	9,060 58
70 Picton	555 00	7,475 00	398 42	8,428 42
71 Port Arthur	249 00	4,735 38	14,150 00	19,134 38
72 Port Hope	704 00	6,516 15	504 00	7,724 15
73 Prescott	450 00	2,978 38	296 10	3,724 48
74 Preston	262 90	3 400 00	1,756 98	5,419 88
75 Rat Portage	1,211 00	13,500 00	185 37	14,896 37
76 Renfrew	365 00	5,913 04	478 32	6,756 36
77 Ridgetown	283 00	3,429 14	1,517 79	5,229 93
78 St Mary's	424 00	3,997 60	40 52	4,462 12
79 Sandwich	109 00		2,333 89	2,442 89
80 Sarnia	902 00	7,266 50	8,450 63	16,619 13
81 Sault Ste. Marie	1,137 00	9,945 00	307 83	11,389 83
82 Seaforth	299 00	3,300 00	525 63	4,124 63
83 Simcoe	522 35	4,626 33	547 62	5,696 30
84 Smith's Falls	638 00	7,313 57	9,222 38	17,173 95
85 Stayner	143 00	2 650 00	54 99	2,847 99
86 Strathroy	526 00	4,350 00	211 96	5,087 96
87 Sturgeon Falls	79 00	1,214 70	11,353 00	12,646 70
88 Sudbury	99 00	1,949 97	1,000 39	3,049 36
89 Thessalon	133 00	1,515 00	0 60	1,648 60
90 Thornbury	91 00	1,088 50	574 80	1,754 30
91 Thorold	162 00	3,026 55	423 40	3,611 95
92 Tilsonburg	269 00	3,712 25	106 47	4,087 72
93 Toronto Junction	972 25	21,050 00	2,080 71	24,102 96
94 Trenton	397 00	4,784 03	55 42	5,236 45
95 Uxbridge	208 00	2,761 28		2,969 28
96 Vankleek Hill	302 00	1,900 00	5,154 07	7,356 07
97 Walkerton	420 00	3,771 06	212 72	4,403 78
98 Walkerville	168 00	3,900 00	116 24	4,184 24
99 Wallaceburg	291 00	4,398 50	373 00	5,062 50
100 Waterloo	378 00	6,300 00	396 93	7,074 93
101 Welland	226 00	3,500 00	4,596 48	8,322 48
102 Whitby	397 00	4,450 00	105 37	4,952 37
103 Wiarton	253 00	2,468 68	251 96	2,973 64
104 Wingham	269 00	3,720 00	71 59	4,060 59
Totals	44,013 05	512,768 35	132,677 99	689,459 39
Totals.				
1 Counties, etc	246,173 15	2,062,974 74	1,040,081 98	3,349,229 87
2 Cities	58,324 50	946,917 89	149,403 50	1,154,645 89
3 Towns	44,013 05	512,768 35	132,677 99	689,459 39
4 Grand totals, 1901	348.510 70	3,522,660 98	1,322,163 47	5,193,335 15
5 " 1900	340,947 45	3,601,652 99	1,171,249 89	5,113,850 33
6 Increases	7,563 25		150,913 58	79,484 82
7 Decreases		78.992 01		
8 Percentages	7	68	25	

Cost per pupil: Counties, etc., $9.09; cities, $16.08; towns, $10.39; Province, $10.44.

* Including Protestant Separate School.

SCHOOLS.—*Concluded.*

Financial Statement.—*Concluded.*

	Expenditure.					Balances.
	Teachers' salaries.	Sites, and building school houses.	Maps, apparatus, prizes and libraries.	Rent and repairs, fuel, and other expenses.	Total expenditure for all Public School purposes.	
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
65	3,852 56	44 91		860 18	4,757 65	333 27
66	3,112 07	334 00	4 00	734 17	4,184 24	461 98
67	3,668 00		15 19	1,040 40	4,723 59	223 40
68	14,147 90			6,748 49	20,896 39	
69	5,077 00			3,689 49	8,766 49	294 09
70	4,155 51		309 05	1,068 14	5,532 70	2,895 72
71	3,235 04	12,835 43	32 75	1,322 99	17,426 21	1,708 17
72	5,750 00			1,974 15	7,724 15	
73	3,020 08		6 86	689 80	3,716 74	7 74
74	2,931 00			877 56	3,808 56	1,611 32
75	9,085 87	372 70	265 10	4,978 43	14,702 10	194 27
76	3,100 25	880 56	3 33	2,300 54	6,284 68	471 68
77	2,803 70	1,295 02	71 98	1,029 95	5,200 65	29 28
78	3,165 98			1,212 15	4,378 13	83 99
79	862 16			292 86	1,155 02	1,287 87
80	8,249 33	5,616 81		2,752 99	16,619 13	
81	6,921 96		270 15	4,051 48	11,243 59	146 24
82	2,585 00			701 43	3,286 43	838 20
83	4,588 30		417 15	377 81	5,383 26	313 04
84	5,288 88	8,950 00	186 44	1,967 56	16,392 88	781 07
85	2,000 01	140 60		484 68	2,625 29	222 70
86	3,929 45		9 35	1,019 85	4,958 65	129 31
87	959 89	9,476 00	632 39	1,522 51	12,590 79	55 91
88	1,615 00	150 00	52 20	336 85	2,154 05	895 31
89	1,275 00			249 54	1,524 54	124 06
90	1,050 00		1 96	392 72	1,444 68	309 62
91	2,450 00		1 96	751 15	3,203 11	408 84
92	3,049 00		24 00	936 57	4,009 57	78 15
93	10,473 43	8,837 60	20 00	3,873 52	23,204 55	898 41
94	2,936 53	489 06	50 00	1,506 72	4,982 31	254 14
95	2,365 45			603 83	2,969 28	
96	1,897 10	4,969 50		352 40	7,219 00	137 07
97	3,439 03		6 30	805 30	4,250 63	153 15
98	2,629 40			1,551 38	4,180 78	3 46
99	3,365 00		185 33	1,287 04	4,837 37	225 13
100	4,499 48			2,085 54	6,585 02	489 91
101	2,030 00	3,416 65	106 95	787 07	6,340 67	1,981 81
102	3,835 00		13 80	1,033 89	4,882 69	69 68
103	2,375 00			483 48	2,858 48	115 16
104	3,156 38			898 56	4,054 94	5 65
	396,582 73	92,270 94	5,673 26	142,201 07	636,728 00	52,731 39
1	1,775,454 22	227,343 40	41,343 54	544,422 95	2,588,564 11	760,665 76
2	702,435 92	114,186 45	27,813 01	258,954 14	1,103,389 52	51,256 37
3	396,582 73	92,270 94	5,673 26	142,201 07	636,728 00	52,731 39
4	2,874,472 87	433,800 79	74,829 81	945,578 16	4,328,681 63	864,653 52
5	2,809,246 04	359,137 56	65,323 90	994,824 43	4,228,531 93	885,318 40
6	65,226 83	74,663 23	9,505 91		100,149 70	
7				49,246 27		20,664 88
8	66	10	2	22		

ROMAN CATHOLIC

I.—Table F.—Financial

Counties (including incorporated villages but not cities or towns,) etc.	Number of Schools.	Receipts.				Expendi-
		Legislative grants.	School rate on supporters.	Subscribed and from other sources.	Total amount received.	Teachers' salaries.
		$ c.	$ c.	$ c.	$ c.	$ c.
1 Bruce	7	453 00	4,711 58	1,819 49	6,984 07	3,355 00
2 Carleton	16	887 00	6,983 79	6,709 98	14,580 77	5,439 58
3 Essex	16	869 00	6,378 19	8,967 27	16,214 46	6,787 81
4 Frontenac	11	595 00	3,346 70	2,220 76	6,162 46	2,630 15
5 Grey	7	282 00	1,728 35	792 92	2,803 27	1,650 00
6 Hastings	7	281 00	1,795 62	432 15	2,508 77	1,660 00
7 Huron	6	250 00	2,586 04	439 29	3,275 33	1,915 00
8 Kent	8	466 00	2,982 57	1,558 68	5,007 25	2,668 75
9 Lambton	2	59 00	561 06	205 79	825 85	496 75
10 Lanark	3	157 00	649 42	92 02	898 44	665 00
11 Leeds and Grenville	5	286 00	1,426 53	527 09	2,239 62	1,304 30
12 Lennox and Addington	2	100 00	521 78	54 19	675 97	516 00
13 Lincoln	2	71 00	1,080 69	381 08	1,532 77	770 00
14 Middlesex	6	227 00	1,774 86	550 71	2,552 57	1,580 00
15 Norfolk	1	47 00	249 02	436 54	732 56	320 00
16 Northumberland	16	292 00	1,845 95	927 89	3,065 84	1,597 55
17 Ontario	1	87 00	155 21	758 40	1,000 61	625 00
18 Peel	1	60 00	146 12	36 39	242 51	220 00
19 Perth	4	160 00	1,444 14	1,715 86	3,320 00	1,080 00
20 Peterborough	1	13 00	245 75	32 90	291 65	225 00
21 Prescott and Russell	68	2,616 00	21,576 11	8,586 44	32,778 55	18,651 04
22 Renfrew	11	961 00	3,346 08	2,026 16	6,333 24	2,910 43
23 Simcoe	4	308 00	1,444 05	233 26	1,985 31	1,273 75
24 Stormont, Dundas and Glengarry	11	645 00	4,524 09	2,021 07	7,190 16	4,588 76
25 Waterloo	7	287 00	3,536 56	1,865 90	5,689 46	2,895 32
26 Wellington	8	344 00	2,975 98	1,625 74	4,945 72	2,241 53
27 Wentworth	1	58 00	135 72	42 00	235 72	210 00
28 York	2	48 00	481 55	365 62	895 17	495 00
29 Algoma District, etc	2	200 00	1,110 00	910 85	2,220 85	1,082 50
30 Nipissing "	15	1,500 00	2,545 50	2,033 99	6,079 49	3,214 70
	241	12,609 00	82,289 01	48,370 43	143,268 44	73,068 92
Cities.						
1 Belleville	3	284 00	1,349 09	540 90	2,173 99	1,386 00
2 Brantford	2	225 00	1,654 45	1,625 18	3,504 63	1,100 00
3 Chatham	1	171 00	1,394 14	13,876 97	15,442 11	1,426 61
4 Guelph	3	262 00	2,404 68	271 45	2,938 13	1,275 00
5 Hamilton	8	983 00	11,938 46	2,824 70	15,746 16	5,890 00
6 Kingston	4	471 00	5,967 00	330 41	6,768 41	3,260 00
7 London	7	581 00	7,044 14	4,833 71	12,458 85	2,866 67
8 Ottawa	23	3,675 00	38,675 00	8,623 06	50,973 06	22,890 00
9 St. Catharines	3	245 00	4 084 27	295 19	4,624 46	1,946 60
10 St. Thomas	1	140 00	1,276 50	38 63	1,455 13	900 00
11 Stratford	1	226 00	2,468 67	399 15	3,093 82	1,300 00
12 Toronto	20	3,118 00	41,211 13	44,457 94	88,787 07	16,705 56
Totals	76	10,381 00	119,467 53	78,117 29	207,965 82	60,946 44

SEPARATE SCHOOLS.

Statement, Teachers, etc.

	ture.					Teachers.				
	Sites and building school houses.	Maps, apparatus, prizes and libraries.	All other purposes.	Total amount expended.	Balances.	Number of teachers.	Male.	Female.	Average salary, male.	Average salary, female. (In addition, members of Religious Orders received free residence.)
	$ c.	$ c.	$ c.	$ c.	$ c.				$	$
1	497 21	220 21	1,669 90	5,642 32	1,341 75	15	3	12	415	193
2	5,667 26	497 45	2,185 33	13,789 62	791 15	25	1	24	350	203
3	5,256 35	299 88	3,166 37	15,510 41	704 05	26	5	21	365	231
4	1,463 77	60 00	1,072 33	5,226 25	936 21	11	2	9	192	247
5	16 80	....	441 92	2,108 72	694 55	7	.....	7	...	239
6	217 40	3 25	259 10	2,139 75	369 02	7	.....	7	..	246
7	13 60	27 12	851 70	2,807 42	467 91	7	2	5	375	253
8	239 29	....	685 45	3,593 49	1,413 76	10	1	9	400	263
9	....	....	86 06	582 81	243 04	2	....	2	..	250
10	1 80	....	115 99	782 79	115 65	3	.....	3	.....	222
11	242 23	18 75	463 51	2,028 79	210 83	7	....	7	..	206
12	2 15	.....	84 94	603 09	72 88	2	.....	2	....	277
13	320 00	12 82	247 30	1,350 12	182 65	4	.....	4	...	200
14	29 90	34 00	608 58	2,252 48	300 09	6	.....	6	.....	263
15	....	34 20	102 77	456 97	275 59	1	.....	1	....	320
16	578 00	15 27	458 66	2,649 48	416 36	7	.....	7	.....	233
17	....	....	202 83	827 83	172 78	2	1	1	400	225
18	.. ....	..	22 51	242 51	.....	1	....	1		220
19	1,294 67	13 66	426 30	2,814 63	505 37	4	1	3	340	247
20	.. ..	....	50 87	275 87	15 78	1	.....	1		225
21	3,077 51	372 18	3,150 51	25,251 24	7,527 31	85	14	71	266	220
22	738 65	33 15	734 25	4,416 48	1,916 76	14	..	14	.	214
23	195 45	21 76	263 50	1,754 46	230 85	7	1	6	390	172
24	410 88	20 27	1,455 04	6,474 95	715 21	20	3	17	342	224
25	532 28	129 92	501 27	4,058 79	1,630 67	12	1	11	420	225
26	1,404 46	51 82	688 47	4,386 28	559 44	10	2	8	257	216
27	..... .	5 00	20 72	235 72	... .	1	.....	1	. ...	210
28	7 50	7 15	234 67	744 32	150 85	2	.....	2		210
29	849 09	4 00	196 66	2,132 25	88 60	3	.....	3	.....	317
30	474 90	40 40	881 97	4,611 97	1,467 52	15	3	12	295	217
	23,531 15	1,922 26	21,229 48	119,751 81	23,516 63	317	40	277	316	224
1	2 93	.....	722 73	2,111 66	62 33	6	1	5	600	208
2	456 77	16 53	1,914 20	3,487 50	17 13	5	.....	5	.....	220
3	7,244 08	.....	1,766 09	10,436 78	5,005 33	6	.....	6	.....	200
4	....	47 90	1,385 97	2,708 87	229 26	8	.....	8	.....	212
5	3,248 42	1,248 18	4,032 66	14,419 26	1,326 90	37	.....	37		170
6	1,590 50	....	1,594 08	6,444 58	323 83	13	1	12	700	227
7	6,699 15	681 50	2,102 36	12,349 68	109 17	18	.....	18	.....	200
8	3,260 00	120 00	24,516 52	50,786 52	186 54	96	5	91	630	203
9	1,210 50	19 50	1,398 90	4,575 50	48 96	9	1	8	500	180
10	.....	50 00	452 63	1,402 63	52 50	5	.....	5	.....	180
11	507 75	66 92	855 56	2,730 23	363 59	6	.....	6		217
12	43,420 80	1,815 00	25,752 39	87,693 75	1,093 32	101	26	75	300	200
	67,640 90	4,065 53	66,494 09	199,146 96	8,818 86	310	34	276	375	198

ROMAN CATHOLIC

1.—Table F.—Financial

Towns.	No. of Schools.	Receipts.				Expendi-
		Legislative grants.	School rate on supporters.	Subscribed and from other sources.	Total amount received.	Teachers' Salaries.
		$ c.	$ c.	$ c.	$ c.	$ c.
1 Almonte	1	110 00	901 80	609 61	1,621 41	858 50
2 Amherstburg	1	223 00	881 54	892 01	1,996 55	1,136 00
3 Arnprior	2	172 00	2,394 47	632 99	3,199 46	1,700 00
4 Barrie	1	100 00	1,427 97	970 96	2,498 93	900 00
5 Berlin	1	263 00	2,449 90	480 21	3,193 11	1,500 80
6 Brockville	1	160 00	2,258 38	140 43	2,558 81	1,822 50
7 Cobourg	1	145 00	900 00	56 89	1,101 89	800 00
8 Cornwall	3	445 00	4,300 00	1,130 80	5,875 80	3,370 00
9 Dundas	1	75 00	854 00	514 14	1,443 14	600 00
10 Galt	1	56 00	547 93	41 84	645 77	325 00
11 Goderich	1	57 00	610 29	10 17	677 46	500 00
12 Hawkesbury	1	213 00	1,897 00	.....	2,110 00	1,600 00
13 Ingersoll	1	71 00	892 36	6 30	969 66	575 00
14 Lindsay	2	206 00	2,050 70	1,428 90	3,685 60	2,110 54
15* Mattawa	1	397 07	3,041 01	299 25	3,737 33	1,653 61
16 Newmarket	1	41 00	264 21	286 94	592 15	290 00
17 Niagara Falls	1	90 00	877 93	103 09	1,071 02	600 00
18 North Bay	2	97 00	1,650 00	58 02	1,805 02	1,056 03
19 Oakville	1	20 00	225 70	80 00	325 70	250 00
20 Orillia	1	113 00	2,194 78	925 78	3,233 56	1,306 55
21 Oshawa	1	59 00	370 00	300 00	729 00	418 00
22 Owen Sound	1	74 00	856 55	546 50	1,477 05	385 00
23 Paris	1	48 00	566 16	472 98	1,087 14	400 00
24 Parkhill	1	35 00	284 19	87 86	407 05	314 00
25 Pembroke	1	273 00	2,857 00	417 99	3,547 99	2,681 91
26 Perth	1	135 00	960 00	220 54	1,315 54	800 00
27 Peterborough	3	418 00	4,004 20	816 15	5,238 35	3,949 00
28 Picton	1	38 00	390 00	618 73	1,046 73	396 65
29 Port Arthur	1	93 00	894 53	472 49	1,460 02	990 00
30 Prescott	1	158 00	1,149 75	527 54	1,835 29	1,120 00
31 Preston	1	48 00	449 08	343 32	840 40	325 00
32 Rat Portage	2	161 00	1,800 00	553 00	2,514 00	1,100 00
33 Renfrew	2	161 00	2,766 89	863 85	3,791 74	1,530 53
34 St. Mary's	1	41 00	400 86	359 59	801 45	325 00
35 Sandwich	1	56 00	.....	930 72	986 72	669 30
36 Sarnia	1	106 00	1,264 75	289 41	1,660 16	925 00
37 Sault Ste. Marie	1	80 00	1,032 47	639 70	1,752 17	955 00
38 Sturgeon Falls	1	63 00	784 48	557 48	1,404 96	864 70
39 Sudbury	1	87 00	1,200 00	685 87	1,972 87	750 00
40 Thorold	1	72 00	1,058 00	217 49	1,347 49	700 00
41 Trenton	1	151 00	2,098 16	555 32	2,804 48	1,348 55
42 Vankleekhill	1	131 00	940 00	386 39	1,457 39	900 00
43 Walkerton	1	114 00	805 91	97 58	1,017 49	575 00
44 Wallaceburg	1	61 00	1,000 00	190 85	1,251 85	725 02
45 Waterloo	1	62 00	900 00	130 39	1,092 39	500 00
46 Whitby	1	28 00	200 00	76 59	304 59	231 36
Totals	55	5,807 07	59,652 95	20,026 66	85,486 68	46,832 75
Totals.						
1 Counties, etc	241	12,609 00	82,289 01	48,370 43	143,268 44	73,068 92
2 Cities	76	10,381 00	119,467 53	78,117 29	207,965 82	60,946 44
3 Towns	55	5,807 07	59,652 95	20,026 66	85,486 68	46,832 75
4 Grand totals, 1901	372	28,797 07	261,409 49	146,514 38	436,720 94	180,848 11
5 " 1900	355	28,953 93	245,992 71	121,190 77	396,137 41	176,031 65
6 Increases	17	.....	15,416 78	25,323 61	40,583 53	4,816 46
7 Decreases	.....	156 86	.....	.....	.....	.....
8 Percentages	.....	6.59	59.86	33.55	.....	46.17
Cost per pupil:		$ c.				
Counties		7 28				
Cities		11 92				
Towns		6 74				
Province		8 90				

* No report received; previous statistics, except legislative grant.

SEPARATE SCHOOLS.—*Continued.*

Statement, Teachers, etc.—*Concluded.*

	ture.					Teachers.				
	Sites and building school houses.	Maps, apparatus, prizes and libraries.	All other purposes.	Total amount expended.	Balances.	Number of teachers.	Male.	Female.	Average salary made.	Av. salary, female. (In addition nbrs. of Rel. Orders rec'd free res'nce.)
	$ c.	$ c.	$ c.	$ c.	$ c.				$	$
1	173 45	.....	589 46	1,621 41	...	3	1	2	500	232
2	74 78	275 92	400 86	1,887 56	108 99	5	.....	5	.....	240
3	144 00	....	764 97	2,608 97	590 49	6	1	5	600	200
4	320 94	.....	620 58	1,841 52	657 41	4	.....	4	.....	225
5	292 33	.....	531 41	2,323 74	869 37	8	.....	8	. . .	187
6	.....	.....	652 56	2,475 06	83 75	8	.....	8	.....	228
7	....	.....	246 20	1,046 20	55 69	4	.....	4	.	200
8	74 36	20 00	2,373 85	5,838 21	37 59	14	1	13	550	217
9	....	.....	203 22	803 22	639 92	3	.....	3	....	200
10	99 00	....	221 77	645 77	.....	1	.....	1	....	325
11	.....	8 50	118 63	627 13	50 33	2	...	2	....	200
12	175 00	10 00	325 00	2,110 00	.....	8	...	8	....	200
13	.....	.....	330 14	905 14	64 52	2	.....	2	.....	287
14	.....	32 70	454 46	2,597 70	1,087 90	7	1	6	650	250
15	1,030 89	144 41	564 05	3,392 96	344 37	5	1	4	550	200
16	.....	.....	212 15	502 15	90 00	1	.....	1	.....	290
17	70 98	20 00	280 00	970 98	100 04	3	....	3	.....	200
18	250 00	....	471 72	1,777 75	27 27	4	.....	4	.....	312
19	20 00	.....	31 70	301 70	24 00	1	....	1	.....	250
20	272 90	4 12	324 77	1,908 34	1,325 22	4	....	4	....	337
21	....	.....	272 49	690 49	38 51	2	...	2	.....	200
22	333 80	... .	143 40	862 20	614 85	2	.. ..	2	.....	192
23	....	.....	133 86	533 86	553 28	2	....	2	.....	200
24	57 50	.....	35 55	407 05	....	1	.. . .	1		300
25	341 31	.....	509 96	3,533 18	14 81	10	1	9	625	221
26	309 54	.....	200 00	1,309 54	6 00	4	.	4	....	200
27	58 45	....	1,230 90	5,238 35	.....	14	1	13	900	245
28	.....	62 92	93 65	553 22	493 51	2	.....	2	....	225
29	65 65	.....	329 03	1,384 68	75 34	3	.....	3	.....	300
30	35 70	.....	679 59	1,835 29	...	4	1	3	500	200
31	146 95	....	111 89	583 84	256 56	1	....	1	.....	325
32	148 00	....	388 62	1,636 62	877 38	6	.....	6	.....	183
33	... .	....	1,320 37	2,850 90	940 84	5	1	4	540	231
34	169 79	10 00	86 69	591 48	209 97	1	.....	1	.....	325
35	.. ..	.....	171 63	840 93	145 79	3	.....	3	.....	223
36	..	.....	360 00	1,285 00	375 16	4	.....	4	.....	241
37	255 00	150 17	392 00	1,752 17	....	3	.....	3	.....	333
38	56 00	21 00	405 52	1,347 22	57 74	3	.....	3	....	288
39	.. ....	.....	514 61	1,264 61	708 26	4	.....	4	. ..	256
40	27 23	80 00	539 13	1,346 36	1 13	3	.....	3	.....	233
41	878 06	.....	459 16	2,685 77	118 71	5	.....	5	.....	250
42	71 64	....	....	971 67	485 75	6	...	6	.....	150
43	16 00	.....	207 08	798 08	219 41	4	.....	4	. .	144
44	...	27 40	322 47	1,080 89	170 96	2	1	1	450	275
45	129 72	... .	256 16	885 88	206 51	3	....	3	....	167
46	....	.....	43 33	274 69	29 90	1	...	1	... .	265
	6,098 97	867 14	18,930 59	72,729 45	12,757 23	191	10	181	586	227
1	23,531 15	1,922 26	21,229 48	119,751 81	23,516 63	317	40	277	316	224
2	67,640 90	4,065 53	66,494 09	199,146 96	8,818 86	310	34	276	375	198
3	6,098 97	867 14	18,930 59	72,729 45	12,757 23	191	10	181	586	227
4	97,271 02	6,854 93	106,654 16	391,628 22	45,092 72	818	84	734	372	215
5	79,236 87	6 669 63	96,612 87	358,551 02	37,586 39	774	91	683	354	212
6	18,034 15	185 30	10,041 29	33,077 20	7,506 33	44	.. ..	51	18	3
7	.....	....	....	....	....	.....	7	.	.....	.....
8	24.83	1.75	27.25	.....	.. . .	.....	10	90	.....	.. ...

ROMAN CATHOLIC

II.—Table G.—Attendance, Pupils in the

Counties (including incorporated villages, but not cities or towns) etc.	Number of Pupils.	Boys.	Girls.	Average attendance.	Percentage of average to total attendance.	Reading.						Writing.	Arithmetic.
						First Reader, Part I.	First Reader, Part II.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.		
1 Bruce	846	443	403	571	67	206	100	211	214	108	7	846	846
2 Carleton	1,515	753	762	804	53	545	321	292	220	122	15	1,515	1,515
3 Essex	1,508	749	759	914	61	517	256	310	250	165	10	1,508	1,508
4 Frontenac	356	177	179	197	55	62	53	47	66	112	16	356	356
5 Grey	272	151	121	129	47	64	41	47	59	58	3	272	272
6 Hastings	266	135	131	122	46	67	38	52	48	56	5	266	266
7 Huron	397	226	171	214	54	63	57	68	104	94	11	397	397
8 Kent	560	296	264	260	46	196	80	73	110	81	20	560	560
9 Lambton	90	50	40	43	48	19	9	17	16	25	4	90	90
10 Lanark	101	50	51	51	50	34	11	14	23	19	....	101	101
11 Leeds & Grenville	208	101	107	130	62	41	24	29	33	51	30	208	208
12 Lennox & Add	94	44	50	48	51	26	8	18	19	18	5	94	94
13 Lincoln	163	91	77	105	62	56	24	37	32	19	....	168	168
14 Middlesex	187	102	85	115	61	20	19	33	31	78	6	187	187
15 Norfolk	94	50	44	40	43	19	11	11	20	33	..	94	94
16 Northumberland	224	124	100	129	58	37	41	46	47	37	16	224	224
17 Ontario	91	47	44	56	62	21	10	12	15	20	13	91	91
18 Peel	29	16	13	18	62	4	3	10	4	8	....	29	29
19 Perth	201	101	100	106	53	36	16	40	45	57	7	201	201
20 Peterborough	36	17	19	14	39	13	4	5	5	8	1	36	36
21 Prescott & Russell	5,090	2,550	2,540	2,713	53	2,242	1,186	818	612	230	2	5,090	5,090
22 Renfrew	663	322	341	333	50	207	97	93	115	100	51	663	663
23 Simcoe	245	117	128	128	52	66	38	53	53	29	6	245	245
24 Stormont, Dundas and Glengarry	1,213	597	616	559	46	426	227	270	145	131	14	1,213	1,213
25 Waterloo	587	323	264	342	58	146	91	124	144	81	1	587	587
26 Wellington	441	232	209	250	57	121	59	76	83	97	5	441	441
27 Wentworth	19	9	10	11	58	4	3	6	3	2	1	19	19
28 York	98	48	50	55	56	32	14	38	6	8	....	98	98
29 Algoma Dist., etc.	192	115	77	93	48	112	30	31	9	10	....	192	192
30 Nipissing Dist	701	337	364	303	43	346	111	120	79	38	7	701	701
Totals	16,492	8,373	8,119	8,852	54	5,748	2,982	3,001	2,610	1,895	256	16,492	16,492
Cities.													
1 Belleville	381	212	169	250	66	120	65	64	51	81	...	381	381
2 Brantford	362	186	176	257	71	107	36	83	69	67	....	362	362
3 Chatham	357	195	162	207	58	95	63	85	53	61	...	357	357
4 Guelph	428	230	198	317	74	77	73	93	94	91	....	428	428
5 Hamilton	1,674	826	848	1,191	71	511	303	280	274	250	56	1,674	1,674
6 Kingston	791	371	420	557	70	163	102	155	186	134	51	791	791
7 London	782	407	375	601	77	178	131	152	185	136	....	782	782
8 Ottawa	5,819	2,922	2,897	3,619	62	1,968	1,242	1,135	990	412	72	5,819	5,819
9 St. Catharines	344	194	150	241	70	76	33	74	72	89	....	344	344
10 St Thomas	230	117	113	184	80	45	59	56	35	35	....	230	230
11 Stratford	309	172	137	228	74	56	52	58	59	84	....	309	309
12 Toronto	5,227	2,652	2,575	3,471	66	1,556	740	1,118	1,005	560	248	5,227	5,227
Totals	16,704	8,484	8,220	11,123	67	4,952	2,899	3,353	3,073	2,000	427	16,704	16,704

SEPARATE SCHOOLS.—*Continued.*

various branches of instruction, Maps, etc.

	Drawing.	Geography.	Music.	Grammar and Composition.	English History.	Canadian History.	Temperance and Hygiene.	Drill and Calisthenics.	Bookkeeping.	Algebra.	Geometry.	Botany.	Elementary Physics.	Agriculture.	Maps and prizes. Number of maps.	Maps and prizes. Number of schools giving prizes.	Number of trees planted on Arbor Day.
1	846	515	476	542	114	257	186	218	11	7	7	3	....	4	63	5	17
2	1,149	806	287	733	158	470	652	740	7	7	7	....	2	66	90	6	12
3	1,354	998	962	926	247	411	363	722	5	10	10	4	37	115	135	10	78
4	348	298	200	272	118	174	132	242	13	14	14	9	...	110	53	2	3
5	262	173	171	173	86	122	188	109	8	7	6	...	...	20	51	2	3
6	266	145	130	167	66	97	111	208	7	5	5	...	....	34	45	1	11
7	357	314	88	280	103	201	152	105	13	13	13	1	23	142	53	2	....
8	560	338	136	305	101	203	172	307	19	20	19	10	...	66	47	5	2
9	90	46	...	71	33	45	58	90	4	4	4	...	....	29	17	...	....
10	101	52	49	54	19	44	36	18	....	....	....	....	....	....	27	...	....
11	156	134	124	150	74	102	72	191	22	30	30	1	13	6	42	1	2
12	87	53	27	61	22	32	44	67	4	4	4	...	...	1	16	...	....
13	168	96	168	96	19	51	105	168	....	....	....	....	...	....	10	....	....
14	187	154	141	151	90	98	131	158	6	6	6	3	....	86	48	2	9
15	94	64	94	64	21	53	33	94	....	....	....	....	....	....	5	....	40
16	222	185	...	196	63	69	51	.....	16	16	16	...	..	13	45	2	....
17	91	91	78	60	33	33	33	78	13	13	13	....	13	20	14	1	....
18	29	22	...	29	8	12	....	29	....	..	....	....	....	8	8	....	....
19	201	137	....	161	68	5	72	62	8	5	5	2	....	22	37	1	7
20	36	23	36	14	14	14	14	..	1	1	1	..	...	1	7	1	7
21	3,366	2,422	747	1,644	245	827	696	1,496	100	14	14	....	97	114	315	40	97
22	592	473	397	442	142	219	258	388	30	49	47	...	21	75	45	6	22
23	245	156	205	163	39	88	42	205	6	6	6	.	....	14	15	1	....
24	1,160	630	141	706	131	259	229	722	18	12	12	....	..	16	62	4	5
25	587	403	497	358	98	159	101	442	21	1	1	1	....	80	54	2	46
26	418	248	265	228	121	194	229	251	5	5	5	....	1	1	67	...	22
27	19	15	19	15	3	6	2	19	1	1	1	...	....	3	4	1	....
28	98	65	98	24	8	8	8	36	....	..	...	..	...	.....	14	1	....
29	131	47	41	47	3	28	12	41	6	...	....	..	....	....	11	1	....
30	316	202	46	155	41	54	83	160	9	5	5	....	....	40	54	8	7
	13,536	9,305	5,623	8,287	2,293	4,332	4,265	7,366	353	255	251	34	207	1,086	1,454	105	390
1	381	196	.. .	132	81	132	132	381	.....	....	....	...	....	....	21	1	....
2	362	362	362	136	136	136	136	362	....	....	....	...	....	.....	14	....	....
3	357	357	357	114	114	114	199	357	61	...	..	....	....	.....	7	1	....
4	428	428	428	278	91	185	185	428	..	....	.	.....	....	.. ..	34	1	...
5	1,674	1,674	1,674	1,163	552	620	1,674	1,674	56	56	56	56	8	.....	176	1	42
6	791	597	791	791	185	371	371	791	51	51	51	....	30	30	58	...	....
7	782	782	782	782	136	321	321	782	.....	....	....	....	....	..	40	1	....
8	5,584	3,187	3,244	2,898	473	2,098	1,630	3,583	164	72	72	....	324	36	194	1	20
9	344	268	344	344	89	161	194	344	.....	....	....	....	....	.....	27	....	....
10	230	126	230	126	70	70	70	230	.....	....	....	..	....	....	8	1	....
11	309	201	309	143	143	143	143	309	.....	....	....	....	....	..	23	...	25
12	5,227	2,931	5,227	2,931	808	1,813	560	5,227	194	248	248	75	75	15	306	...	16
	16,469	11,109	13,748	9,838	2,878	6,164	5,615	14,468	526		427	131	437	81	908	7	103

ROMAN CATHOLIC

II.—Table G.—Attendance, Pupils in the

Towns.	Number of Pupils.	Boys.	Girls.	Average attendance.	Percentage of average to total attendance.	Reading.						Writing.	Arithmetic.
						First Reader, Part I.	First Reader, Part II.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.		
1 Almonte	172	78	94	106	62	51	18	35	26	42	...	172	172
2 Amherstburg	270	125	145	199	74	57	32	63	56	36	26	270	270
3 Arnprior	439	212	227	266	61	139	73	64	107	56	....	439	439
4 Barrie	162	96	66	114	70	33	20	39	34	36	...	162	162
5 Berlin	433	234	199	310	72	102	55	105	110	61	..	433	433
6 Brockville	398	190	208	271	68	82	65	99	81	71	....	398	398
7 Cobourg	236	133	103	150	64	70	30	46	60	30	...	236	236
8 Cornwall	1,015	500	515	625	62	329	244	216	114	112	...	1,015	1,015
9 Dundas	152	75	77	88	58	44	20	29	34	25	...	152	152
10 Galt	94	45	49	70	74	17	7	25	27	18	....	94	94
11 Goderich	73	41	32	59	81	20	9	11	15	18	....	73	73
12 Hawkesbury	623	305	318	409	66	259	170	86	50	58	....	623	623
13 Ingersoll	87	40	47	70	80	20	9	18	16	24	..	87	87
14 Lindsay	344	145	199	243	71	69	54	64	65	61	31	344	344
15 *Mattawa	273	141	132	165	60	107	29	46	40	33	18	273	273
16 Newmarket	68	36	32	45	66	22	15	7	5	19	....	68	68
17 Niagara Falls	149	78	71	101	68	45	12	36	27	29	....	149	149
18 North Bay	238	133	105	155	65	105	18	30	37	48	....	238	238
19 Oakville	41	24	17	24	59	12	6	7	3	13	....	41	41
20 Orillia	235	123	112	165	70	65	40	34	42	54	....	235	235
21 Oshawa	84	36	48	58	69	11	16	17	26	14	....	84	84
22 Owen Sound	111	57	54	77	69	20	12	36	26	17	....	111	111
23 Paris	68	33	35	52	76	8	11	13	18	17	1	68	68
24 Parkhill	63	29	34	35	55	18	6	12	13	14	....	63	63
25 Pembroke	533	311	222	277	52	157	117	95	80	84	....	533	533
26 Perth	219	111	108	153	70	60	29	37	50	43	....	219	219
27 Peterborough	743	371	372	527	71	212	147	159	138	87	....	743	743
28 Picton	48	25	23	35	73	23	5	7	6	7	....	48	48
29 Port Arthur	243	116	127	142	58	107	26	32	30	48	....	243	243
30 Prescott	217	129	88	148	68	35	32	45	43	62	....	217	217
31 Preston	80	43	37	58	72	13	5	27	20	15	....	80	80
32 Rat Portage	291	134	157	190	65	110	53	62	56	10	....	291	291
33 Renfrew	308	160	148	212	69	92	54	50	64	48	....	308	308
34 St. Mary's	69	35	34	38	55	18	12	9	12	18	..	69	69
35 Sandwich	142	62	80	102	72	38	24	31	36	13	....	142	142
36 Sarnia	207	97	110	134	65	40	21	56	42	48	....	207	207
37 Sault Ste. Marie	233	124	109	110	47	103	41	39	38	12	....	233	233
38 Sturgeon Falls	213	116	97	101	47	146	24	31	.....	11	1	213	213
39 Sudbury	260	121	139	104	40	112	66	23	35	22	2	260	260
40 Thorold	134	58	76	85	63	38	15	22	17	42	....	134	134
41 Trenton	230	100	130	179	78	58	40	44	59	29	....	230	230
42 Vanleekhill	245	106	139	149	61	62	56	41	47	39	....	245	245
43 Walkerton	207	104	103	164	79	34	18	50	47	58	....	207	207
44 Wallaceburg	170	86	84	69	41	63	23	27	15	42	....	170	170
45 Waterloo	131	62	69	86	66	34	15	41	27	14	....	131	131
46 Whitby	40	23	17	30	75	6	7	7	11	9	....	40	40
Totals	10,791	5,403	5,388	6,950	64	3,266	1,801	2,073	1,905	1,667	79	10,791	10,791
Totals.													
1 Counties, etc	16,492	8,373	8,119	8,853	54	5,748	2,982	3,001	2,610	1,895	256	16,492	16,492
2 Cities	16,704	8,484	8,220	11,123	67	4,952	2,899	3,353	3,073	2,000	427	16,704	16,704
3 Towns	10,791	5,403	5,388	6,950	64	3,266	1,801	2,073	1,905	1,667	79	10,791	10,791
4 Grand totals, 1901	43,987	22,260	21,727	26,926	61	13,966	7,682	8,427	7,588	5,562	762	43,987	43,987
5 " 1900	42,397	21,515	20,882	25,875	61	13,166	7,224	8,271	7,370	5,595	771	42,397	42,397
6 Increases	1,590	745	845	1,051	....	800	458	156	218	.....	....	1,590	1,590
7 Decreases	.....	....	....	.....	....	....	...	.....	.....	33	9	....	.....
8 Percentages	.....	50.61	49.39	61	....	32	17	19	17	13	2	100	100

* No report received; previous statistics.

SEPARATE SCHOOLS.—*Concluded.*

various branches of instruction, Maps, etc.—*Concluded.*

	Drawing	Geography.	Music.	Grammar and Composition.	English History.	Canadian History.	Temperance and Hygiene.	Drill and Calisthenics.	Bookkeeping.	Algebra.	Geometry.	Botany.	Elementary Physics.	Agriculture.	Maps and prizes. Number of Maps.	Maps and prizes. Schools giving prizes.	No. of trees planted on Arbor Day.
1	172	103	.....	103	42	68	42	61	...	.	...	....	....	.....	17	...	....
2	244	211	..	218	66	122	36	.....	22	26	26	....	5	.....	21	1	....
3	439	163	439	302	56	56	56	.....	.....	....	....	....	....	.....	12	...	....
4	162	129	162	109	36	70	109	162	...	...	...	....	....	.....	18	1	....
5	433	276	433	276	61	171	171	433	.....	..	....	....	....	.....	27	....	....
6	398	316	398	286	71	152	106	398	.....	....	....	..	....	....	25	....	....
7	236	136	236	166	30	61	61		.....	....	...	....	....	.....	9	....	....
8	1,015	686	1,015	702	112	226	226	1,015	....	....	....	....	....	....	22	1	....
9	152	152	152	152	35	35	35	93	.....	....	....	....	....	.....	16	....	....
10	77	70	94	70	18	45	18	94	.....	....	....	....	....	.....	6		....
11	73	53	73	53	33	33	33	73	.....	....	....	....	....	.....	8	1	....
12	623	623	623	413	28	230	28	623	30	....	....	....	....	....	19	....	5
13	87	58	87	58	24	40	40	....	.....	....	....	....	....	.....	8	1	....
14	344	248	344	344	119	175	152	344	.....	31	31	....	31	...	18	1	....
15	166	137	273	137	33	73	33	..	18	18	18	....	..	18	26	....	....
16	68	31	68	31	19	19	19	68	.....	....	....	....	....	....	7	....	....
17	149	149	149	104	29	56	104	149	...	....	..	....	....	.....	16	....	1
18	238	133	105	115	48	85	48	.....		..	...	..	....	.....	10	....	....
19	41	35	35	35	13	13	13	41	.....	...	....	....	....	.....	6	1	....
20	235	120	235	120	54	96	96	235	.....	....	....	....	....	.....	9	....	....
21	84	73	84	57	40	40	40	84	....	..	....	.	....	....	10	....	....
22	111	79	111	111	43	79	111	111	.....	....	....	....	....	.....	6	1	....
23	68	68	68	49	18	36	18	68	1	....	....	....	....	18	7	1	....
24	63	39	63	39	14	39	14	.....	.....	....	..	..	....	....	8	1	....
25	533	344	118	259	121	164	84	172	....	....	....	....	....	....	30	1	.. .
26	219	159	219	130	43	93	130	219	.....	....	....	....	....	.....	6	....	....
27	743	484	743	371	87	225	412	743	.....	....	....	....	....	.....	36	...	....
28	48	25	..	19	7	13	20	....	.....	....	....	....	....	.....	8	1	....
29	243	136	213	243	48	78	48	243	.....	....	....	....	....	....	10	1	...
30	217	185	112	185	40	105	62	217	.....	....	....	....	....	....	20	....	....
31	80	67	.....	67	15	35	62	80	...	....	....	....	....	....	9	....	....
32	291	128	291	128	65	65	291	291	.....	....	....	....	26	....	11	....	....
33	308	114	31	114	55	55	48	260	.....	....	....	...	....	....	10	....	....
34	69	42	50	29	22	29	22	..	....	..	....	....	....	.....	7	....	....
35	142	105	....	49	34	49	142	.....	.....	....	...	....	...	.....	6	....	....
36	207	167	.....	167	48	90	48	.....	.....	....	....	....	....	.....	19	....	....
37	233	50	233	130	12	50	50	130	.....	....	....	....	....	.....	10	1	....
38	213	43	..	43	12	12	12	.....	.....	1	1	...	....	.....	6	....	....
39	260	148	260	260	24	59	59	260	2	2	2	....	....	.....	8	....	....
40	134	96	134	134	42	59	134	134	.....	....	....	....	....	.....	13	....	....
41	230	132	230	132	88	88	29	230	....	....	...	....	....	....	10	....	....
42	245	127	245	183	39	86	86	.....	....	....	....	....	....	.....	11	...	3
43	207	207	207	207	58	105	207	207	.....	...	....	....	....	....	17	1	....
44	170	84	.....	84	42	42	42	.....	...	...	....	....	....	....	10	...	....
45	131	82	131	82	6	19	19	131	.....	....	....	....	..	....	12	1	12
46	40	27	.. .	20	9	20	9	.....	...	....	....	....	....	....	12	....	....
	10,641	7,040	8,494	7,086	1,959	3,561	3,625	7,369	73	78	78	....	62	36	612	16	21
1	13,536	9,305	5,623	8,287	2,293	4,332	4,265	7,366	353	255	251	34	207	1,086	1,454	105	390
2	16,469	11,109	13,748	9 838	2,878	6,164	5,615	14,468	526	427	427	131	437	81	908	7	103
3	10,641	7,040	8,494	7,086	1,959	3,561	3,625	7,369	73	78	78	....	62	36	612	16	21
4	40,646	27,454	27,865	25,211	7,130	14,057	13,505	29,203	952	760	756	165	706	1,203	2,974	128	514
5	34,201	27,923	27,614	25,955	7,083	13,529	12,549	29,944	1,183	839	790	272	219	1,382	2,829	108	514
6	6,445	... ..	251	.....	47	528	956	.....	.....	.....	.....	.....	487	.....	145	20	....
7	.....	469	...	744	....	.....	.....	741	231	79	34	107	....	179	....	....	....
8	92	62	63	57	16	32	31	66	2	2	2	.38	2	3	.....	34	....

COLLEGIATE INSTITUTES

I.—Table H.—

Collegiate Institutes.	Receipts.						Teachers' salaries.
	Legislative grants.	Municipal grants, (county).	Municipal grants (local).	School fees.	Balances and other sources.	Total receipts.	
	$ c.	$ c.	$ c.	$ c	$ c.	$ c.	$ c.
1 Aylmer	881 90	1,181 88	1,650 00	725 00	165 31	4,604 09	3,750 00
2 Barrie	1,118 44	2,083 59	1,700 00	1,776 95	766 30	7,445 28	5,683 65
3 Brantford	1,321 77	.....	7,500 00	2,628 15	551 24	12,001 16	8,700 00
4 Brockville	1,128 12	1,762 00	6,300 00	1,174 00	1,211 49	11,575 61	6,825 64
5 Chatham	1,300 38	1,708 50	5,604 00	1,305 65	528 26	10,446 79	7,870 00
6 Clinton	939 09	1,558 95	1,500 00	868 25	746 84	5,613 13	4,525 00
7 Cobourg	942 41	942 41	2,500 00	958 00	785 83	6,128 65	4,925 00
8 Collingwood	910 00	860 00	2,300 00	827 25	3,172 78	8,070 03	4,457 17
9 Galt	1,256 21	2 020 76	3,750 00	1,838 00	299 18	9.164 15	7,100 00
10 Goderich	1,015 78	1,342 75	2,600 00	1,548 60	2,075 51	8,582 64	5,360 85
11 Guelph	1,131 51	....	6,150 00	456 00	576 87	8,314 38	6,080 00
12 Hamilton	*5,365 27	.....	25,223 56	3,603 25	401 00	34,593 08	16,175 50
13 Ingersoll	987 96	1,454 54	1,360 00	693 25	1,302 43	5,798 18	4,863 27
14 Kingston	†2,723 30	.....	6,698 00	3,405 60	1,086 50	13,913 40	10,814 19
15 Lindsay	1,110 18	1,773 66	4.146 57	1,549 00	174 01	8,753 42	7,002 70
16 London	1,348 76	1,200 00	21.287 52	3,490 00	1,287 07	28,613 35	21,040 00
17 Morrisburg	1,055 57	2,370 57	2,484 50	448 00	3,040 91	9,399 55	5,320 00
18 Napanee	1,058 20	.... ..	2,815 00	104 00	4,026 39	8,003 59	4,947 30
19 Niagara Falls	1,142 39	1,800 00	4,000 00	.....	1,974 29	8,916 68	5,558 50
20 Orillia	1,012 42	962 42	3.300 00	1,162 40	3,153 61	9,590 85	4.732 86
21 Ottawa	1,292 03	.....	11,925 00	6,996 00	506 46	20,719 49	16,087 39
22 Owen Sound	1,236 89	2,415 11	4,710 00	2,384 00	1,298 57	12,044 57	9,050 00
23 Perth	941 16	1,124 93	4,212 10	398 00	403 07	7,079 26	4,835 00
24 Peterborough	1,267 76	.....	6.000 00	2,033 00	617 79	9,918 55	6,922 00
25 Ridgetown	948 10	1,573 75	1,721 00	879 50	900 06	6,022 41	4,113 18
26 St. Catharines	1,264 01	1,766 21	10,482 49	35 00	196 00	13,743 71	7,149 99
27 St. Marys	909 41	799 20	2,350 00	1,472 05	73 41	5,604 07	4,400 00
28 St. Thomas	1,255 25	1,458 62	6,192 01	1,131 00	145 00	10,181 88	8,346 00
29 Sarnia	1,058 20	1,745 20	3,953 50	96 00	903 30	7,756 20	5,250 00
30 Seaforth	970 91	1,708 93	1,800 00	1,368 40	1,241 38	7,089 62	4 673 85
31 Stratford	†2,676 72	1,300 00	6,000 00	1,832 50	1,793 43	13,602 65	7,483 09
32 Strathroy	973 90	1,871 33	2,400 00	1,045 00	485 49	6,775 72	4,816 00
33 Toronto (Harbord)	1,363 56	.....	12,920 00	6,724 00	2,390 62	23,398 18	18,623 33
34 " (Jameson)	1,339 94	.....	12,920 00	3,625 00	1,565 96	19,450 90	14,904 66
35 " (Jarvis)	1,330 99	.....	12,920 00	5,250 50	3,324 93	22,826 42	16,466 98
36 Whitby	864 99	1,356 72	2,200 00	391 05	242 69	5,055 45	3,964 66
37 Windsor	1,189 33	1,631 16	5,634 81	... ...	102 93	8,558 23	6,740 00
38 Woodstock	†1,690 83	1,782 42	3,250 00	1,882 22	873 30	9,478 77	7,050 00
Totals	50,323 64	43,555 61	224,460 06	66,104 57	44,390 21	428,834 09	296,607 76

* $4,000 for Normal College. † Includes

AND HIGH SCHOOLS.

Financial Statement.

	Expenditure.					Balances.	Charges per year.
	Buildings, sites and all permanent improvements.	Repairs to school accommodations.	Library, scientific apparatus, maps, etc., drawing models or equipment for physical education.	School books, stationery, prizes, fuel, examinations, and all other expenses.	Total expenditure,		
	$ c.	$ c.	$ c	$ c.	$ c.	$ c.	
1	78 65	....	12 50	762 94	4,604 09	....	Res. Form I, $5 ; others $10.
2	.....	39 20	167 24	713 41	6,603 50	841 78	$10.
3	.....	194 40	.....	2,891 57	11,785 97	215 19	Res. $10 ; non-res. $16.
4	11 10	100 00	196 00	2,329 59	9,462 33	2,113 28	Res., F's. II, III, IV, $10; others $5.
5	566 52	.....	190 69	1,658 41	10,285 62	161 17	Res. F. I free ; other forms $6 ; County $10.
6	150 00	253 90	98 56	585 67	5,613 13	....	$6 ; $8 ; $10.
7	68 48	....	59 82	910 51	5,963 81	164 84	$12
8	2,019 47	295 09	86 93	817 87	7,676 53	393 50	Res. $7.50 ; others $10.
9	164 10	77 39	148 34	1,615 88	9,105 71	58 44	Co. $10 ; others $14.
10	.....	111 13	20 63	779 86	6,272 47	2,310 17	Res. $5, $7, $10 ; Co. $6, $8, $10 non-res $8, $10, $12.
11	.....	203 14	115 07	1,825 86	8,224 07	90 31	Res. free ; Co. $10 ; others $20.
12	.....	20 15	428 76	17,968 67	34,593 08	....	F. I $2.50 ; other forms $10 ; non-res. $20
13	.....	50 50	100 00	721 14	5,734 91	63 27	$7.50.
14	375 97	172 67	34 20	1,653 53	13,050 56	862 84	Res. $10, $12, $15; non-res. $20, $25.
15	....	171 74	68 90	1,501 84	8,745 18	8 24	$7.50 ; $10 ; $20.
16	396 45	556 54	358 12	6,262 24	28,613 35	....	City and Co. $10 ; others $30.
17	691 68	53 17	129 18	160 00	6,354 03	3,045 52	Res. free ; others $6.
18	.....	227 70	28 47	1,264 56	6,468 03	1,535 56	Co. free ; others $10.
19	264 28	105 32	6 75	1,230 62	7,165 47	1,751 21	Free.
20	1,517 34	65 73	581 83	1,112 44	8 010 20	1,580 65	Res. $5 ; non-res. $10.
21	127 50	.....	64 00	4,046 76	20,325 65	393 84	Fs I&II, City&Co $20; others $30; Fs. III & IV City & Co. $25; others $35.
22	337 77	501 48	....	1,887 08	11,776 33	268 24	F I free ; town $8 to $12; Co. $10 ; non-res. $12 to $15.
23	20 00	676 18	120 49	1,093 34	6,745 01	334 25	Co. $5 ; non-res. $16.
24	1,100 00	.....	....	1,608 75	9,630 75	287 80	$5 ; $10 ; $25.
25	.....	89 00	23 02	1,366 40	5,591 60	430 81	Res F. I free ; other forms $6 ; Co. $10 ; non-res. 10.
26	5,146 00	....	.... ..	1,259 68	13,555 67	188 04	Res. free ; others $16.
27	96 00	20 26	26 78	783 04	5,326 08	277 99	Res. 1st year free ; thereafter $5 ; Co. $10 ; non-res. $15.
28	234 19	111 01	68 18	1,422 50	10,181 88	.....	F. I & part of F. II free; other forms $10; Co. $10; other Co's. $30.
29	.... .	.....	....	1,549 03	6,799 03	957 17	Free.
30	273 81	28 47	75 88	790 27	5,842 23	1,247 34	F I $6; F. II $8; Fs. III & IV $10.
31	3,819 60	100 47	37 88	1,925 24	13,366 28	236 37	$10.
32	35 38	200 26	254 53	1,208 25	6,514 42	261 30	Res. F. I free ; others $10
33	.....	764 87	114 43	3,895 55	23,398 18	}	F, I free; F. II $7 to $23; Fs. III & IV $32.
34	....	687 79	230 39	3,628 06	19,450 90	}	$7 to 32.
35	.....	2,082 92	362 84	3,913 68	22,826 42	}	F. I free ; F. II $8 to $23; F. III & IV $32.
36	162 35	61 94	2 25	788 51	4,979 71	75 74	Town $6 ; Co. $7.50 ; others $10.
37	.....	137 83	53 16	1,627 24	8,558 23	....	Free.
38	.....	70 85	731 87	1,091 17	8,943 89	534 88	City & Co. $7.50 ; others $10.
	17,656 64	8,231 10	4,997 69	80,651 16	408,144 35	20,689 74	7 free ; 31 fee.

grant for Technical Education.

COLLEGIATE INSTITUTES

I.—Table H.—

High Schools.	Receipts.						Teachers' salaries.
	Legislative grants.	Municipal grants (County).	Municipal grants (local).	School fees.	Balances and other sources.	Total receipts.	
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
1 Alexandria	623 38	623 38	2,836 00	....	1,751 32	5,834 08	2,686 00
2 Almonte	693 78	693 78	2,714 30	227 00	208 56	4,537 42	3,332 72
3 Arnprior	592 54	592 54	1,850 00	57 00	1,130 43	4,222 51	2,495 00
4 Arthur	589 96	816 96	750 00	623 80	232 95	3,013 67	2 105 00
5 Athens	639 28	1,670 00	1,050 00	273 75	715 85	4,348 88	2,980 00
6 Aurora	607 41	700 00	750 00	524 00	487 48	3,068 89	2,150 00
7 Beamsville	477 08	527 38	550 00	....	178 96	1,733 42	1,350 00
8 Belleville	784 35	455 00	3,996 17	292 00	....	5,527 52	4,441 80
9 Berlin	780 38	2,172 06	1,153 01	929 50	1,295 61	6,330 56	3,966 64
10 Bowmanville	769 18	769 18	2,400 00	431 74	720 55	5,090 65	3,800 00
11 Bradford	574 59	574 59	600 00	557 50	840 73	3,147 41	1,844 80
12 Brampton	830 78	1,760 78	1,650 00	1,256 00	98 09	5,595 65	4 720 00
13 Brighton	447 82	681 94	500 00	107 50	500 48	2,237 74	1,600 00
14 Caledonia	572 40	1,072 40	600 00	316 50	1,058 35	3,619 65	2,149 99
15 Campbellford	668 03	835 58	1,492 43	499 75	.....	3,495 79	2,463 32
16 Carleton Place	685 34	685 34	2,000 00	190 00	769 91	4,330 59	3,337 39
17 Cayuga	553 10	1,500 50	650 00	249 00	1,107 34	4,059 94	2,285 00
18 Colborne	450 68	450 13	400 00	84 00	1,983 24	3,368 05	1,525 00
19 Cornwall	864 82	1,694 70	3,311 00	.. ....	3,207 74	9,078 26	5,066 51
20 Deseronto	645 45	645 45	2,300 00	185 50	544 00	4,320 40	2,519 69
21 Dundas	693 42	1,747 95	696 27	574 00	53 38	3,765 02	2,529 61
22 Dunnville	599 77	1,653 02	1,524 00	321 25	50 82	4,148 86	2,472 50
23 Durton	565 00	521 22	300 00	964 25	496 14	2,846 61	2,312 87
24 Elora	539 18	539 18	750 00	503 50	310 28	2,642 14	2,160 00
25 Essex	658 95	2,747 70	500 00		140 36	4,047 01	2,401 10
26 Fergus	567 76	567 06	1,500 00	90 50	2,729 27	5,454 59	2,273 92
27 Forest	574 04	1,233 32	950 00	325 00	814 66	3,895 02	2,074 85
28 Fort William	720 52	....	2,739 06	....	562 24	4,021 82	1,666 47
29 Gananoque	649 82	849 82	1,824 83	129 00	50 00	3,503 47	2,500 00
30 Georgetown	581 75	700 55	964 83	630 50		2,877 63	2,200 00
31 Glencoe	621 15	866 14	900 00	580 50	139 17	3,106 96	2,360 00
32 Gravenhurst	1,015 90	.....	400 00	384 10	288 05	2,088 05	1,410 04
33 Grimsby	421 86	555 53	425 00	51 00	339 24	1,792 63	1,360 00
34 Hagersville	599 30	1,155 77	.....	209 50	861 04	2,825 61	2,250 00
35 Harriston	607 10	607 10	1,300 00	651 00	219 26	3,384 46	2,220 23
36 Hawkesbury	580 49	1,380 49	1,100 00	....	635 15	3,696 13	2,386 50
37 Iroquois	711 94	1,548 23	1,200 00	522 00	1,552 01	5,534 18	3,005 00
38 Kemptville	665 92	893 50	1,637 69	827 50	165 00	4,189 61	3,316 88
39 Kincardine	725 32	1,400 42	1,300 00	866 00	431 47	4,723 21	3,400 00
40 Leamington	666 90	1,242 96	1,015 00	33 00	784 76	3 742 62	3,146 11
41 Listowel	600 17	800 00	800 00	726 00	319 45	3,245 62	2,350 00
42 Lucan	632 23	955 36	600 00	979 80	1,079 70	4,247 09	2,910 00
43 Madoc	535 98	1,144 77	700 00	516 00	233 10	3,129 85	2,223 22
44 Markham	724 54	1,292 28	500 00	1,263 00	498 62	4,278 44	3,275 00
45 Meaford	742 94	1,594 07	1,550 00	739 95	10 97	4,637 93	3,024 98
46 Mitchell	632 46	799 10	1,300 00	319 75	127 95	3,179 26	2,650 00
47 Mount Forest	732 78	732 78	1,400 00	715 00	904 71	4,485 27	2,898 42
48 Newburgh	533 50	1,650 00	387 00	.... ..	438 05	3,008 55	2,200 00
49 Newcastle	461 48	465 22	1,000 00	96 95	545 33	2,568 98	1,266 66
50 Newmarket	620 87	700 00	800 00	744 85	675 05	3,540 77	2,291 00
51 Niagara	430 41	485 97	500 00	.....	173 17	1,589 55	1,225 00
52 Niagara Falls South	584 89	584 89	1,611 88	.. ....	455 13	3,236 79	2,044 16
53 Norwood	631 07	689 13	....	497 00	2,683 06	4,500 26	2,200 00
54 Oakville	474 57	655 79	420 84	276 00	908 00	2,735 20	1,600 00

AND HIGH SCHOOLS.—*Continued.*

Financial Statement.—*Continued.*

	Expenditure.					Balances.	Charges per year.
	Buildings, sites and all permanent improvements.	Repairs to school accommodations	Library, scientific apparatus, maps, etc., drawing models or equipment for physical education.	School books, stationery, prizes, fuel, examinations, and all other expenses.	Total expenditure.		
	$ c	$ c	$ c	$ c.	$ c.	$ c.	
1	61 45	.....	.....	1,209 65	3,957 10	1,876 98	Free.
2	326 61	.....	22 67	629 80	4 311 80	225 62	Res. $1 ; Co. $6 ; non-res. $11.
3	31 68	.. ....	. ....	547 30	3,073 98	1,148 53	Res. free ; non-res. $10.
4	100 00	281 97	68 72	398 94	2,954 63	59 04	$10.
5	.....	90 15	22 00	1,046 13	4,138 28	210 60	Res. free ; Co. $5 ; non-res. $10.
6	40 18	33 25	40 18	409 88	2,673 49	395 40	$10.
7	.....	19 73	16 27	266 15	1,652 15	81 27	Free.
8	.....	110 20		975 52	5,527 52	....	$25.
9	507 45	297 62	337 97	1,220 88	6,3 0 56	.....	$10.
10	200 00	56 85	7 00	840 06	4,903 91	186 74	F. I $4 ; F. II $6 ; F's. III and IV $7.50.
11	.. .. ..	3 25	.... ..	1,274 66	3,122 71	24 70	Res. F. I free ; others $10.
12	63 80	43 41	25 82	708 06	5,561 09	34 56	$10.
13	2 50	13 75	9 49	277 53	1,903 27	334 47	Res. free ; Co. $7.50.
14	332 40	36 82	1 50	483 66	3,004 37	615 28	Co. free ; others $4.50.
15	.....	.....	20 05	1,012 42	3,495 79	....	H.S. Dist. $6; Co. $7.50; others $10.
16	... ...	8 18	117 73	590 71	4,054 01	276 58	Res. free ; others $6.
17	197 17	175 76	.... ..	1,283 59	3,941 52	118 42	Free.
18	92 75	16 75	49 72	305 46	1,989 68	1,378 37	$7.50.
19	626 83	.....	.....	1,391 13	7,084 47	1,993 79	Free.
20	86 20	316 76	.. ..	762 73	3,685 38	635 02	Res. free ; others $10.
21	26 82	14 20	25 00	619 85	3,215 48	549 54	Town F. I free ; $3.50 ; $10.
22	.....	255 69	37 90	682 90	3,448 99	699 87	$4.50.
23	17 20	.... ..	135 00	308 58	2,773 65	72 96	$10.
24	75 39	3 70	21 94	324 25	2,585 28	56 86	Res. $5 ; others $10.
25	.....	90 00	134 83	263 82	2,889 75	1,157 26	Free.
26	494 38	412 03	101 18	2,173 08	5,454 59	... .	Res. free ; Co. $10.
27	55 00	....	....	669 02	2,798 87	1,096 15	$10 H. S. Dist.
28	.....	13 61	130 85	1,878 31	3,689 24	332 58	Free.
29	.....	39 86	309 55	654 06	3,503 47	.....	$5.
30	17 48	16 20	27 18	616 77	2.877 63	... .	F. I. $7 ; others $10.
31	.....	122 62	....	608 81	3 091 43	15 53	Res: and Co. $10 ; others $20.
32	61 18	....	17 50	595 73	2,084 45	3 60	$10.
33	.....	13 21	115 97	126 22	1,555 40	237 23	Res. free ; non-res. $12.
34	.....	59 27	44 51	471 83	2,825 61	.....	$4.50.
35	.....	44 45	33 95	587 54	2,886 17	498 29	$10.
36	102 03	.....	.....	613 18	3,101 71	594 42	Free.
37	17 70	.....	94 68	933 50	4,050 88	1,483 30	$6.
38	123 10	.....	54 55	695 08	4,189 61	.....	Res. free ; Co. $5 ; non-res. $15.
39	160 00	.....	43 55	844 27	4,447 82	275 39	Res. $8 ; Co. $10.
40	....	24 69	67 65	410 25	3,648 70	93 92	Co free ; others $10.
41	....	140 00	75 00	680 62	3,245 62	....	Co. $10 ; others $12.
42	80 29	23 68	125 25	1,081 14	4,220 36	26 73	$10.
43	11 25	7 75	2 18	494 80	2,739 20	390 65	Res. $7 ; others $10.
44	.....	191 70	38 08	624 10	4,128 88	149 56	$10.
45	....	480 53	.. ..	1,040 31	4,545 82	92 11	Town $8 ; others $10.
46	.....	51 45	59 56	248 16	3,009 17	170 09	Res. $6 ; non-res. $10.
47	.....	114 87	226 10	1,171 04	4,410 43	74 84	Res. F. I free ; others $10.
48	31 00	13 25	54 08	398 27	2,696 60	311 95	Free.
49	75 03	.. ..	.....	627 00	1,968 69	600 29	Res. free ; Co. $7.50.
50	.....	82 70	170 68	874 13	3,418 51	122 26	$10.
51	21 10	21 87	50 35	158 52	1,476 84	112 71	Free.
52	45 90	15 83	105 07	502 10	2,713 06	523 73	Free.
53	....	150 00	47 05	2,040 76	4,437 81	62 45	Res. and Co. $6 ; non-res. $15.
54	.....	.....	15 61	306 43	1,922 04	813 16	$5 $8.

COLLEGIATE INSTITUTES

I.—Table H.—

High Schools.	Receipts.						Teachers' salaries.
	Legislative grants.	Municipal grants (county).	Municipal gran's (local).	School fees.	Balances and other sources.	Total receipts.	
	$ c.	$ c.	$ c.	$ c	$ c.	$ c.	$ c.
55 Omemee	445 94	445 94	....	279 25	641 58	1,812 71	1,420 42
56 Orangeville	807 17	1,050 00	1,850 00	1,140 75	99 52	4,947 44	4,013 23
57 Oshawa	710 72	710 72	2,550 00	1,000 31	328 99	5,300 74	4,131 66
58 Paris	633 47	650 95	2,200 00	140 00	86 32	3,710 74	2,800 00
59 Parkhill	560 17	560 17	760 00	524 75	829 84	3,234 93	1,995 00
60 Pembroke	705 67	705 67	2,221 28	....	440 15	4,072 77	3,237 84
61 Petrolea	773 36	1,361 70	2,600 00	378 00	1,722 13	6 835 19	3,780 89
62 Picton	840 80	2,179 80	3,000 00	9 50	426 46	6,456 56	4,683 34
63 Port Arthur	1,052 40	.....	1,120 31	20 10	713 64	2,906 45	2,383 37
64 Port Dover	442 54	477 33	710 95	50 00	484 95	2,165 77	1,413 00
65 Port Elgin	579 08	703 59	1,200 00	483 25	85 50	3,051 42	2,483 80
66 Port Hope	806 46	1,336 51	2,138 23	1,053 50	95 55	5,430 25	4,270 03
67 Port Perry	664 47	1,205 15	1,474 25	446 50	114 00	3,904 37	3,196 15
68 Port Rowan	411 58	638 41	476 78	...	24 00	1,550 77	1,250 00
69 Prescott	597 36	400 00	1,725 05	57 00	56 71	2,836 12	2,180 00
70 Renfrew	*1 208 68	1,412 18	4,431 00	....	157 80	7,209 66	3,460 00
71 Richmond Hill	463 67	784 56	....	549 75	478 83	2,276 81	1,500 00
72 Simcoe	746 22	1,910 73	1,581 07	21 00	88 02	4,347 04	3,650 00
73 Smith's Falls	675 66	675 66	2,186 43	123 50	72 00	3,733 25	3,200 00
74 Smithville	493 81	622 00	760 56	118 00	717 85	2,712 22	1,735 00
75 Stirling	468 00	468 00	1,000 00	463 92	527 60	2,927 52	1,650 00
76 Streetsville	446 87	946 87	275 00	204 00	393 85	2,266 59	1,407 75
77 Sydenham	562 68	1,600 00	....	459 00	308 95	2,930 63	2,267 64
78 Thorold	585 02	584 30	1,600 00	.....	836 67	3,605 99	2,360 00
79 Tilsonburg	599 95	599 95	1,300 00	356 00	587 15	3,443 05	2,299 88
80 Toronto Junction	938 24	868 72	4,400 00	1,493 50	841 73	8,542 19	5,270 00
81 Trenton	612 30	288 52	2,882 51	240 00	161 78	4,185 11	2,500 08
82 Uxbridge	666 54	934 15	1,228 26	327 75	199 93	3,356 63	2,688 16
83 Vankleekhill	753 44	1,853 44	1,000 00	158 00	438 32	4,203 20	2,750 61
84 Vienna	467 86	467 86	965 00	.....	62 03	1,962 75	1,327 75
85 Walkerton	723 81	1,211 26	1,910 00	842 50	397 29	5,084 86	3,900 00
86 Wardsville	432 27	432 27	460 00	252 25	253 61	1,830 40	1,258 72
87 Waterdown	492 78	892 78	450 00	210 00	66 88	2,112 44	1,950 00
88 Waterford	582 00	1,331 87	700 00	65 00	673 27	3,352 14	2,100 00
89 Watford	652 71	.....	....	374 00	3,613 88	4,640 59	2,641 00
90 Welland	655 75	1,510 16	1,650 00	.....	401 03	4,216 94	2,930 00
91 Weston	496 35	700 00	500 00	246 00	80 17	2,022 52	1,716 45
92 Wiarton	575 70	755 66	1,000 00	331 00	323 49	2,985 85	2,305 00
93 Williamstown	590 53	590 53	2,369 25	.....	2,446 41	5,996 72	2,443 50
1 Totals, High Schools	58,876 36	85,548 42	120,825 24	33,759 52	56,782 06	355,791 60	238,913 65
2 " Coll. Institutes.	50,323 64	43,555 61	224,460 06	66,104 57	44,390 21	428,834 09	296 607 76
3 Grand totals, 1901	109,200 00	129,104 03	345,285 30	99,864 09	101,172 27	784,625 69	535,521 41
4 " 1900	103,200 00	129,286 36	336,923 92	98,725 53	104,196 54	772,332 35	529,245 36
5 Increases	.....	.....	8,361 38	1,138 56	.....	12,293 34	6,276 05
6 Decreases	.....	182 33	.....	.....	3,024 27	.....	.....
7 Percentages	13.92	16.45	44.01	12.73	12.89	.....	73.55
Cost per pupil	$32 33	.....	.....	.....	.....	.....	.....

* $500 for

AND HIGH SCHOOLS.—*Continued.*

Financial Statement.—*Concluded.*

	Expenditure.					Balances.	Charges per year.
	Buildings, sites and all permanent improvements.	Repairs to school accommodations.	Library, scientific apparatus, maps, etc., drawing models or equipment for physical education.	School books, stationery, prizes, fuel, examinations, and all other expenses.	Total expenditure.		
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	
55	.....	123 49	54 34	201 46	1,799 71	13 00	H. S. Dist. $5 : others $10.
56	155 97	.....	46 40	725 25	4,940 85	6 59	Town $9 ; Co. $10.
57	91 73	.....	266 98	746 20	5,236 57	64 17	$7.50.
58	15 00	20 89	10 25	837 88	3,684 02	26 72	Free ; Co. and non-res. $10.
59	.....	27 72	.....	426 86	2,449 58	785 35	Res. F. I and II $6 ; F. III $8 ; non-res. $10.
60	5 46	.....	33 22	796 25	4,072 77	.....	Free.
61	.....	24 00	.....	678 09	4,482 98	2,352 21	Co. free ; town $10.
62	.... .	556 21	117 13	1,099 88	6,456 56	....	Res. free ; non-res. $10.
63	.....	....	....	523 08	2,906 45	.....	Free.
64	.....	.....	92 85	659 92	2,165 77	.....	Free.
65	169 49	3 25	27 31	323 80	3,007 65	43 77	Res. $6.50 ; Co. $10.
66	.....	.....	325 87	834 35	5,430 25	....	Co. $7.50 ; town and non-res. $9.
67	230 12	.....	26 01	379 98	3,832 26	72 11	Res. and Co. $7.50 ; others $10.
68	127 28	.... .	21 00	152 49	1,550 77	..... .	Free.
69	13 20	33 90	19 64	589 38	2,836 12	.....	Res. free ; non-res. $5.
60	.....	.....	114 36	933 26	4,507 62	2,702 04	Free.
71	.....	.....	69 35	437 17	2,006 52	270 29	$10.
72	.....	.....	43 02	654 02	4,347 04	.....	Res. and Co. free ; others $10.
73	.....	14 90	.. ...	518 35	3,733 25	.....	Res. free ; Co. $5 ; others $10.
74	36 10	12 15	77 33	274 51	2,135 09	577 13	Free ; F. IV $20.
75	25 10	4 74	.....	389 27	2,139 11	788 41	$10.
76	.....	....	.. ....	240 20	1,647 95	618 64	$5.
77	159 07	18 57	10 66	465 72	2,921 66	8 97	$5.
78	.....	50 00	191 25	634 76	3,236 01	369 98	Free.
79	35 28	37 30	8 26	589 27	2,969 99	473 06	First year free to res. ; $6.
80	233 70	.... .	443 19	1,329 16	7,276 05	1,266 14	$10 ; $15.
81	439 45	57 18	61 00	357 03	3,414 74	770 37	$10.
82	.. .	28 78	....	639 69	3,356 63	....	Res. $5 ; non-res. $7.50.
83	33 60	22 50	54 07	769 07	3,629 85	573 35	Res free ; non-res. $10.
84	.....	30 89	....	186 33	1,544 97	417 78	Free.
85	.....	92 00	24 02	449 91	4,465 93	618 93	$10.
86	.. ....	23 85	.. ..	484 80	1,767 37	63 03	Res. $7.50 ; Co. $10 ; non-res. $15.
87	.....	7 00	15 00	140 44	2,112 44	.. ....	$5.
88	.....	7 25	... .	471 34	2,578 59	773 55	Free ; non-res. $9.
89	.....	17 54	....	1,041 42	3,699 96	940 63	$10.
90	42 20	132 90	49 19	533 82	3,688 11	528 83	Free.
91	51 85	38 30	21 87	170 00	1,998 47	24 05	$10.
92	37 03	13 45	26 23	433 76	2,815 47	170 38	Res. $5 ; others $10.
93	478 70	.....	....	2,803 37	5,725 57	271 15	Free.
1	6,534 20	5,306 37	5,353 72	63,880 23	319,988 17	35,803 43	39 free ; 54 fee.
2	17,656 64	8,231 10	4,997 69	80,651 16	408,144 35	20,689 74	7 free ; 31 fee.
3	24,190 84	13,537 47	10,351 41	144,531 39	728,132 52	56,493 17	46 free ; 85 fee.
4	20,233 80	12,166 39	10,323 06	146,633 02	718,601 63	53,730 72	40 free ; 91 fee.
5	3,957 04	1,371 08	28 35	.....	9,530 89	2,762 45	6 free.
6	..... .	.....	....	2,101 63	... .	....	6 fee
7	3.32	1.86	1.42	19.85	.....	.....	
8	.....	.....	.....	.....	.....	.....	

Technical Education.

COLLEGIATE INSTITUTES

II.—Table I.—Attendance, Pupils in the

Collegiate Institutes.	Pupils and attendance.				Number of pupils in the						
	Boys.	Girls.	Total.	Average attendance.	Reading.	English Grammar and Rhetoric.	English Composition.	Poetical Literature.	Supplementary Reading in English Literature.	Canadian History.	English History.
1 Aylmer	60	81	141	89	76	141	141	141	141	76	141
2 Barrie	159	151	310	176	180	217	303	304	305	176	188
3 Brantford	165	193	358	215	258	278	354	354	354	162	248
4 Brockville	116	157	273	167	191	205	273	270	270	191	225
5 Chatham	161	177	338	194	338	338	338	300	300	260	240
6 Clinton	91	90	181	101	162	181	181	181	162	117	181
7 Cobourg	67	94	161	93	123	137	161	161	161	123	133
8 Collingwood	77	102	179	91	96	153	179	179	179	105	124
9 Galt	120	108	228	139	173	184	228	226	226	173	226
10 Goderich	128	134	262	160	178	250	250	250	250	117	165
11 Guelph	129	130	259	152	151	217	259	259	259	151	193
12 Hamilton	276	358	634	381	302	437	589	604	604	330	421
13 Ingersoll	76	63	139	87	118	129	137	137	137	118	118
14 Kingston	203	262	465	265	343	417	465	460	460	252	190
15 Lindsay	128	123	251	147	152	238	251	251	251	175	175
16 London	432	428	860	503	572	713	838	838	838	572	623
17 Morrisburg	129	83	212	123	96	197	209	209	209	102	77
18 Napanee	129	117	246	145	183	205	242	242	242	161	170
19 Niagara Falls	106	139	245	131	196	219	245	245	245	196	216
20 Orillia	116	126	242	161	157	242	242	242	242	135	156
21 Ottawa	281	208	489	280	378	393	489	489	489	271	278
22 Owen Sound	203	191	394	228	165	270	394	394	394	165	239
23 Perth	97	114	211	130	147	189	209	209	209	174	183
24 Peterborough	115	137	252	193	170	203	252	250	250	65	186
25 Ridgetown	83	92	175	97	90	168	175	175	160	108	142
26 St. Catharines	143	182	325	181	240	289	325	325	325	240	264
27 St. Marys	95	133	228	146	104	170	227	227	227	101	130
28 St. Thomas	174	230	404	243	303	374	404	404	404	303	333
29 Sarnia	138	109	247	147	205	215	240	240	237	197	201
30 Seaforth	101	103	204	131	92	198	198	200	92	92	92
31 Stratford	150	169	319	192	283	300	315	315	315	275	300
32 Strathroy	86	96	182	121	168	148	182	175	182	110	110
33 Toronto (Harbord)	277	261	538	325	280	358	538	538	538	354	408
34 Toronto (Jameson)	188	162	350	215	288	312	350	350	350	112	347
35 Toronto (Jarvis)	238	243	481	257	481	400	481	481	307	481	481
36 Whitby	78	92	170	93	126	170	170	170	170	126	140
37 Windsor	156	172	328	186	250	283	322	295	250	240	240
38 Woodstock	146	169	315	182	218	260	315	315	315	179	213
Totals	5,617	5,979	11,596	6,867	8,033	9,798	11,471	11,405	11,049	7,285	8,497

AND HIGH SCHOOLS.—*Continued.*

arious subjects, and examination results.

various branches of instruction.

	Ancient History.	Geography.	Arithmetic and Mensuration.	Algebra.	Geometry.	Trigonometry.	Physics.	Chemistry.	Botany.	Zoology.	Latin.	Greek.	French.	German.	Writing.
1	65	76	135	138	100	15	92	52	76	.... .	138	1	65	.....	76
2	144	173	267	297	250	22	222	143	58	3	273	7	158	17	109
3	130	205	301	350	340	25	135	98	92	8	254	16	264	56	136
4	132	175	205	270	185	34	185	50	85	4	240	10	223	72	116
5	88	200	323	270	260	20	234	120	44	5	280	25	209	23	120
6	76	84	168	181	150	19	117	39	78	3	163	14	125	23	52
7	38	123	137	161	127	10	93	32	68	.....	150	3	129	25	68
8	80	106	153	174	128	14	106	70	59	5	146	4	43	10	54
9	55	173	218	226	186	6	50	38	88	.....	129	7	128	69	95
10	101	122	215	245	137	28	120	66	125	2	182	3	112	22	88
11	98	151	217	231	156	32	121	46	39	3	129	2	167	65	75
12	246	278	431	609	416	100	341	116	153	28	542	6	367	195	127
13	37	88	126	138	103	5	50	24	73	2	87	1	87	5	35
14	97	288	411	384	231	11	152	67	71	.....	347	8	341	85	41
15	139	152	226	211	185	29	182	84	105	.....	235	5	164	30	112
16	258	572	713	680	443	51	437	190	247	10	688	27	439	75	360
17	121	100	197	200	180	18	161	71	80	1	189	6	151	21	80
18	63	171	226	223	129	20	100	61	84	6	190	....	203	47	137
19	90	196	219	245	174	18	109	58	104	4	170	8	52	14	138
20	110	236	236	230	190	21	146	75	56	4	212	6	179	55	76
21	81	286	400	472	309	21	105	121	112	11	398	34	381	82	161
22	229	165	270	363	300	67	256	105	105	18	330	15	248	37	120
23	60	174	186	206	134	11	76	21	78	.....	187	13	124	15	57
24	69	170	203	245	170	12	107	64	105	.....	190	4	176	28	105
25	76	90	166	175	141	20	141	54	68	8	155	4	40	18	90
26	85	240	273	325	140	17	115	54	142	13	193	9	207	92	185
27	117	98	187	226	226	32	178	40	77	6	208	12	154	18	77
28	101	303	374	362	232	30	217	44	181	5	258	.....	158	42	157
29	69	169	215	240	117	11	72	27	53	.....	207	22	192	45	128
30	112	92	174	196	159	30	72	84	49	4	183	5	42	18	50
31	110	250	300	300	225	36	185	77	165	7	246	10	93	74	209
32	55	90	148	170	125	7	110	30	60	2	165	7	95	25	56
33	145	294	396	510	424	91	206	123	263	14	398	52	471	177	142
34	55	198	316	348	246	16	154	58	148	8	316	24	288	88	108
35	260	264	402	473	469	86	296	284	201	42	470	11	401	160	130
36	56	126	156	170	117	8	50	33	126	4	164	8	82	20	53
37	70	200	316	283	160	8	144	50	200	3	198	.....	100	45	145
38	70	201	247	303	157	20	162	61	146	8	240	14	130	29	97
	3,988	7,079	9,853	10,830	7,921	1,021	5,799	2,830	4,064	241	9,250	403	6,988	1,922	4,165

COLLEGIATE INSTITUTES

II.—Table I.—Attendance, Pupils in the

Collegiate Institutes.	Number of pupils in the various branches of instruction.—*Con.*									Number passed Junior Leaving Pt. I Examination.	Number of Honors obtained by such pupils.
	Bookkeeping and Commercial Transactions.	Stenography.	Typewriting.	Drawing.	Temperance and Hygiene.	Vocal Music	Drill Calisthenics and Gymnastics.	Agriculture.	Manual Training.		
1 Aylmer	70			70			135			24	7
2 Barrie	108	64	61	109			296			25	
3 Brantford	136	79	65	113			320		78	19	3
4 Brockville	116	30	30	116						45	
5 Chatham	120	72	70	120		30	315			27	
6 Clinton	68	37		71			173			12	
7 Cobourg	123	72	70	75				6		17	2
8 Collingwood	64	32	14	74			162			15	
9 Galt	95	53	39	95			215			16	3
10 Goderich	123	29		123			236			13	
11 Guelph	103	56	29	75			227			21	1
12 Hamilton	182	50		184			400			56	2
13 Ingersoll	81	11		56			135			19	1
14 Kingston	167	88	88	179					73	12	
15 Lindsay	112	16		112			238			17	
16 London	381	144	59	330			790			56	9
17 Morrisburg	80	55	12	100			176	38		14	
18 Napanee	137	73	34	134			236			22	1
19 Niagara Falls	138	96	19	100			230			29	1
20 Orillia	120	80	50	91			228			30	4
21 Ottawa	330	150		333			431			14	4
22 Owen Sound	155	25	16	130			320			29	5
23 Perth	79			136			202			17	3
24 Peterborough	105			105			252			16	2
25 Ridgetown	90	15		56			166			17	1
26 St. Catharines	185	127	35	129			304			11	
27 St. Marys	85	40	23	77			205			36	
28 St. Thomas	157	74		157			404			33	4
29 Sarnia	174			174			217			14	
30 Seaforth	61	12	20	42			204			23	1
31 Stratford	209	100	53	209					56	21	
32 Strathroy	56	30	20	55			165			27	
33 Toronto (Harbord)	305	141	68	259			513			17	
34 Toronto (Jameson)	162	63	12	158			312			20	
35 Toronto (Jarvis)	190	190	190	130			469			9	
36 Whitby	70	30	25	68			151			16	3
37 Windsor	180	59	59	250			318			13	
38 Woodstock	118	49	39	97			300		47	17	
Totals	5,235	2,242	1,200	4,892	..	30	9,445	44	254	839	57

AND HIGH SCHOOLS.—*Continued.*

various subjects, and examination results.—*Continued.*

Examination Results.

	Number passed Junior Leaving Pt. II Exam.	Number of Honors obtained by such pupils.	Number passed Commercial Diploma Exam. Pts. I and II.	Number passed Commercial Diploma Exam. Pt. II.	Number passed Senior Leaving Pt. I Exam.	Number of Honors obtained by such pupils.	Number passed Senior Leaving Pt. II Exam.	Number of Honors obtained by such pupils.	Number passed Departmental Matriculation Exam.	Number passed the Junior Matriculation Exam. held by any University.	Number of first-class Junior Matriculation Honors taken by pupils.	Number of second-class Junior Matriculation Honors taken by pupils.	Number passed the Senior Matriculation Exam. held by any University.	Number of first-class Senior Matriculation Honors taken by pupils.	Number of second class Senior Matriculation Honors taken by pupils.	Number passed the Entrance Examination other than the Departmental, for any profession.
1	16	1	....	....	2	....	2	....	3	7	3	7	.....	.....	.....	.....
2	32	....	....	....	5	....	6	.....	20	.....	...	.....	1	.....	.....	.....
3	23	....	2	4	4	....	4	....	12	3	2	9	1	.....	.....	.....
4	6	....	....	....	2	....	2	.....	12	....	...	....	10	2	8	10
5	26	....	1	1	5	....	2	.....	8	1	.....	14	.....	.....	.....	.....
6	17	....	....	....	3	....	3	....	3	.....	3	8	.....	.....	.....	1
7	10	1	....	....	2	....	2	.....	6	.....	.....	.....	.....	.....	.....	.....
8	14	....	....	1	1	....	1	.....	6	3	1	2	.....	.....	.....	....
9	15	....	2	5	2	....	2	.....	10	.....	5	2	.....	.....	.....	.....
10	23	....	....	....	4	....	5	.....	3	1	2	.....	.....	.....	.....	.....
11	7	1	....	4	8	....	6	.....	7	2	3	5	.....	.....	.....	.....
12	29	....	....	....	20	3	16	1	43	4	39	60	.....	.....	.....	10
13	6	....	....	....	1	....	3	.....	6	.....	.....	.....	.....	.....	.....	... ..
14	6	....	....	3	3	....	2	.....	20	.....	....	.....	12	26	.....	.....
15	16	....	....	....	3	2	3	2	27	3	6	.....	.....	.....	.....	.. ...
16	40	1	...	5	11	....	9	1	32	7	15	15	1	.....	....	...
17	21	....	1	1	5	..	4	.....	3	....	.....	.....	....	.....	.....	
18	18	2	....	....	5	....	3	.....	1	1	.....	....	.....	.....		
19	14	....	....	6	3	....	...	.....	5	1	6	3	.....	.....	.....	1
20	28	1	....	....	5	....	2	.....	18	1	6	2	...	.....	.....	.....
21	12	1	....	....	3	....	7	.....	9	14	.....	.....	.....	.....	.....	
22	48	...	....	....	13	1	13	.....	16	1	15	15	1	3	2	.....
23	14	....	....	....	3	...	1	1	8	1	.....	.....	... ..	.....	.. ...	.....
24	22	....	....	....	4	..	1	.....	10	.....	3	.....	.....	.....	.....	.....
25	16	....	....	....	3	....	2	.. ..	9	...	3	1	.....	.....	.....	3
26	9	....	....	....	1	3	1	4	24	15	16	1	1	.....	1	3
27	17	....	....	....	11	....	3	....	4	5	23	10	.....	.....	.....	.. ...
28	19	1	....	....	9	....	6	.....	7	.....	....	.....	.....	.....	.....	3
29	10	....	....	....	1	....	2	.....	7	.....	5	6	.....	.....	....	.....
30	30	....	..	....	6	....	4	....	8	8	.....	...	1	1	1	.....
31	8	....	3	3	7	....	4	.....	11	.....	....	.....	.....	.....	.....	.....
32	16	....	....	....	2	1	4	.....	10	.....	.....	.....	.....	.....	.....	.... .
33	12	....	1	2	3	....	3	1	29	.....	40	5	.....	..	.. ..	2
34	10	....	....	....	3	2	.....	.....	31	.....	9	4	.....	.....	.....	.....
35	5	....	3	....	3	....	2	.....	52	54	25	11	.....	.....	.....	21
36	10	1	....	....	3	....	3	.....	2	....	... .	3	.....	.....	....	.....
37	5	....	....	....	1	....	2	....	5	.....	2	....	1	1	2	.....
38	16	....	....	....	3	....	4	.....	12	.....	8	4	.....	.....	.....	.....
	646	10	13	35	173	12	139	10	499	132	240	187	29	33	14	64

COLLEGIATE INSTITUTES

II.—Table I.—Attendance, Pupils in the

High Schools.	Pupils and attendance.				Number of pupils			
	Boys.	Girls.	Total.	Average attendance.	Reading.	English Grammar and Rhetoric.	English Composition.	Poetical Literature.
1 Alexandria	50	67	117	69	117	114	117	117
2 Almonte	69	65	134	82	88	104	122	122
3 Arnprior	54	62	116	69	116	112	116	116
4 Arthur	54	52	106	60	73	91	106	106
5 Athens	64	93	157	102	84	142	157	157
6 Aurora	50	40	90	49	90	83	90	90
7 Beamsville	33	29	62	35	53	59	62	62
8 Belleville	156	206	362	150	221	197	201	221
9 Berlin	81	66	147	84	125	146	146	146
10 Bowmanville	54	57	111	67	56	96	111	111
11 Bradford	58	49	107	63	66	100	107	107
12 Brampton	101	81	182	124	108	155	182	182
13 Brighton	34	36	70	46	45	63	70	70
14 Caledonia	46	48	94	59	63	94	94	94
15 Campbellford	48	54	102	52	69	100	102	102
16 Carleton Place	65	85	150	92	108	123	150	150
17 Cayuga	48	41	89	48	43	80	87	87
18 Colborne	33	31	64	38	36	64	64	64
19 Cornwall	85	107	192	107	184	184	184	184
20 Deseronto	38	76	114	68	84	110	114	114
21 Dundas	59	70	129	73	129	129	129	129
22 Dunnville	60	65	125	71	99	115	119	118
23 Dutton	88	82	170	94	75	150	168	170
24 Elora	53	47	100	56	68	95	100	100
25 Essex	46	53	99	59	59	80	99	99
26 Fergus	43	61	104	62	104	104	104	104
27 Forest	48	53	101	60	77	95	101	101
28 Fort William	16	36	52	24	31	49	48	8
29 Gananoque	41	81	122	73	99	105	122	122
30 Georgetown	43	55	98	61	70	87	98	98
31 Glencoe	49	40	89	54	63	80	87	87
32 Gravenhurst	27	33	60	28	33	55	60	60
33 Grimsby	18	35	53	31	40	47	53	48
34 Hagersville	35	34	69	43	43	55	68	68
35 Harriston	51	48	99	60	41	55	69	69
36 Hawkesbury	35	38	73	43	45	63	72	72
37 Iroquois	71	56	127	77	103	118	115	115
38 Kemptville	90	92	182	107	80	169	180	180
39 Kincardine	64	79	143	86	78	119	140	140
40 Leamington	55	71	126	77	29	96	126	126
41 Listowel	82	71	153	78	109	153	153	153
42 Lucan	63	60	123	83	66	105	123	123
43 Madoc	46	39	85	49	54	69	85	85
44 Markham	93	104	197	113	108	148	197	197
45 Meaford	58	61	119	81	52	92	113	113
46 Mitchell	49	57	106	63	78	105	105	105
47 Mount Forest	84	70	154	98	89	139	154	154
48 Newburgh	79	90	169	89	169	163	169	169
49 Newcastle	28	16	44	28	22	44	44	30
50 Newmarket	53	63	116	67	78	80	116	116
51 Niagara	16	27	43	20	33	41	41	41
52 Niagara Falls South	49	51	100	43	79	99	99	99
53 Norwood	70	49	119	67	119	119	119	119
54 Oakville	20	39	59	35	47	59	59	59

AND HIGH SCHOOLS.—*Continued.*

various subjects, and examination results.—*Continued.*

in the various branches of instruction.

	Supplementary Reading, in English Literature.	Canadian History.	English History.	Ancient History.	Geography.	Arithmetic and Mensuration.	Algebra.	Geometry.	Trigonometry.	Physics.	Chemistry.
1	117	114	114	27	78	114	117	58	.....	58	13
2	122	93	93	45	93	123	120	59	.....	52	22
3	116	95	95	33	95	113	116	60	.....	64	20
4	106	61	71	45	61	91	106	71	5	64	43
5	157	75	78	78	73	142	157	119	5	102	72
6	90	63	63	34	64	83	90	90	7	50	24
7	62	58	58	14	50	59	62	30	.....	27	6
8	221	160	170	57	135	180	219	104	6	80	55
9	146	125	125	43	105	142	146	99	7	95	23
10	111	78	80	24	78	97	108	76	9	63	28
11	107	66	66	39	68	100	107	77	.....	38	24
12	182	108	108	47	108	155	177	139	20	96	42
13	70	42	42	25	42	63	70	43	.....	35	24
14	94	63	63	36	63	94	94	67	6	67	34
15	28	80	82	29	67	100	100	59	2	57	20
16	150	102	110	38	99	123	150	99	8	59	11
17	87	44	50	44	44	78	83	70	7	64	24
18	34	34	52	28	36	64	64	45	.....	40	28
19	.....	130	136	83	130	184	180	180	18	43	6
20	84	84	81	39	84	110	113	113	3	58	12
21	129	86	86	43	86	117	128	116	1	70	32
22	119	98	100	20	81	116	114	74	4	61	12
23	170	75	95	95	75	150	170	170	20	170	95
24	95	68	73	43	68	95	100	74	5	74	30
25	99	56	71	40	54	80	99	66	12	64	33
26	104	64	64	30	64	100	104	54	.....	40	30
27	101	76	76	35	76	95	101	101	.....	72	27
28	5	14	45	8	45	50	48	48	1	20	5
29	122	99	99	41	90	105	122	84	3	60	35
30	98	70	94	44	61	87	98	98	7	69	28
31	87	57	64	41	54	72	87	63	7	57	20
32	60	37	38	26	37	55	60	39	.....	.....	24
33	48	46	46	13	46	49	50	32	.....	28	6
34	68	43	46	25	43	55	68	45	3	31	5
35	69	41	60	28	40	55	69	47	6	36	16
36	72	46	50	27	46	63	73	48	11	30	14
37	115	96	100	35	89	118	124	88	7	75	27
38	175	89	89	90	89	170	180	155	13	140	68
39	140	75	75	40	39	119	140	98	15	90	16
40	126	68	78	48	68	96	126	97	10	55	42
41	153	108	108	68	153	144	153	153	.....	105	68
42	123	66	79	57	66	105	123	92	13	75	47
43	85	54	54	31	54	85	85	85	.....	61	53
44	197	108	131	89	108	148	197	197	23	10	10
45	76	46	46	50	42	92	110	101	13	105	37
46	105	78	78	40	76	101	105	105	.....	64	38
47	154	89	96	73	89	139	154	154	15	103	52
48	169	50	117	52	117	163	169	169	.....	165	28
49	30	32	34	12	44	36	43	43	.....	32	12
50	116	78	87	29	78	80	116	73	9	44	18
51	26	38	38	10	38	41	42	31	.....	11	7
52	99	79	79	22	79	99	99	99	.....	56	20
53	119	84	84	35	119	119	117	82	.....	80	32
54	59	39	39	20	39	59	59	59	.....	23	20

COLLEGIATE INSTITUTES

II.—Table I.—Attendance, Pupils in the

High Schools.	Number of pupils in the various branches of instruction.—*Con.*												
	Botany.	Zoology.	Latin.	Greek.	French.	German.	Writing.	Bookkeeping and Commercial Transactions.	Stenography.	Typewriting.	Drawing.	Temperance and Hygiene.	Vocal Music.
1 Alexandria	59	....	114	1	117	.....	90	90	....	....	90	..	....
2 Almonte	55	....	94	5	66	11	37	89	71	30	51	..	....
3 Arnprior	72	....	114	7	64	6	72	72	....	....	72	..	....
4 Arthur	61	....	106	....	30	2	47	47	21	.....	47	..	....
5 Athens	60	....	153	3	72	10	85	60	.....	.....	99	..	....
6 Aurora	40	....	80	6	80	6	40	45	45	.....	40	..	....
7 Beamsville	32	...	41	....	23	....	32	38	.....	.....	38	..	....
8 Belleville	164	2	197	1	150	5	110	110	.. ..	.....	108	.	....
9 Berlin	35	...	111	2	41	117	90	90	....	.....	90	.	
10 Bowmanville	31	....	96	2	65	8	31	31	.....	.....	31	..	....
11 Bradford	.....	....	100	....	78	2	68	68	.....	.....	64	..	.. ..
12 Brampton	75	5	167	6	155	18	70	75	. .	....	75	..	....
13 Brighton	25	....	68	....	19	.....	25	25	...	.....	40	.	....
14 Caledonia	32	....	93	....	30	7	32	35	.....	.....	32	..	.
15 Campbellford	40	....	99	....	20	2	45	62	.....	.....	62	.	....
16 Carleton Place	81	....	130	6	81	7	51	81	....	.....	81	..	....
17 Cayuga	28	....	75	1	45	7	28	28	.....	.....	28	..	....
18 Colborne	19	....	54	....	37	20	19	45	.....	.....	19	..	....
19 Cornwall	55	....	192	10	180	16	68	68	.....	.....	68	..	68
20 Deseronto	63	....	98	....	43	17	84	56	.....	....	83	..	....
21 Dundas	70	....	124	2	103	7	78	78	.....	.....	78	..	....
22 Dunnville	40	....	112	....	52	25	65	86	11	.....	62	..	....
23 Dutton	40	6	168	3	30	18	35	40	.....	.....	40	..	....
24 Elora	57	....	91	...	38	17	19	44	.....	....	44	..	....
25 Essex	36	3	99	3	36	7	33	33	.....	.....	33	.	....
26 Fergus	40	....	104	40	95	3	40	40	....	.....	40	..	....
27 Forest	32	....	91	3	56	40	29	24	....	....	50	..	....
28 Fort William	20	....	49	...	47	1	27	27	15	. ...	27	..	....
29 Gananoque	38	....	106	....	71	.....	58	60	....	.....	58	.	....
30 Georgetown	46	....	84	3	56	5	43	43	.....	....	43	..	....
31 Glencoe	34	....	87	1	78	4	34	36	....	....	34	.	....
32 Gravenhurst	37	....	46	...	9	2	37	25	27	.....	25	..	...
33 Grimsby	37	....	47	....	30	.....	36	38	.....	....	35	..	.
34 Hagersville	35	....	53	....	50	11	23	43	.....	.....	43	.	....
35 Harriston	15	....	69	3	30	15	22	22	....	....	40	.	....
36 Hawkesbury	22	....	52	2	70	8	22	22	.....	.....	22	.	....
37 Iroquois	68	2	101	1	60	9	65	65	30	.....	65	.	...
38 Kemptville	44	1	170	8	94	10	42	42	.....	.....	42	..	....
39 Kincardine	39	....	130	15	128	28	50	50	39	42	40	..	....
40 Leamington	16	....	108	...	72	5	33	33	3	.....	30	.	....
41 Listowel	50	....	133	...	82	58	47	47	.. ...	.....	47	..	....
42 Lucan	36	5	120	....	53	24	31	32	14	13	41	.	....
43 Madoc	35	....	85	....	35	.....	33	33	.....	..	33	..	...
44 Markham	3	3	195	5	103	4	57	60	100	.....	108	..	....
45 Meaford	23	3	106	....	53	26	26	28	14	46	26	..	....
46 Mitchell	54	...	86	....	47	.....	54	54	.....	.....	54	..	....
47 Mount Forest	75	....	138	4	75	11	75	75	... .	.....	75	..	....
48 Newburgh	117	....	166	....	69	9	117	115	. ....	....	117	..	....
49 Newcastle	22	....	43	....	32	9	22	22	.....	....	22	..	....
50 Newmarket	43	....	98	3	45	7	43	58	41	26	48	..	....
51 Niagara	24	...	23	....	31	1	21	28	24	15	24	..	....
52 Niagara Falls South	49	....	64	...	17	9	49	50	43	15	49	..	....
53 Norwood	84	....	116	....	50	7	84	84	.....	....	82	..	....
54 Oakville	33	....	55	...	12	.....	39	39	.....	.....	39	..	....

AND HIGH SCHOOLS.—*Continued.*

various subjects, and examination results.—*Continued.*

| | | | | Examination results. | | | |

COLLEGIATE INSTITUTES

II.—Table I.—Attendance, Pupils in the

High Schools.	Pupils in attendance.				Number of pupils			
	Boys.	Girls.	Total.	Average attendance.	Reading.	English Grammar and Rhetoric.	English Composition.	Poetical Literature.
55 Omemee	26	22	48	34	36	36	48	48
56 Orangeville	107	92	199	113	74	147	196	195
57 Oshawa	101	79	180	106	155	180	180	180
58 Paris	50	49	99	56	80	83	99	99
59 Parkhill	57	47	104	67	60	88	104	104
60 Pembroke	98	73	171	99	124	156	171	171
61 Petrolea	106	91	197	118	131	187	197	197
62 Picton	125	126	251	152	195	225	250	250
63 Port Arthur	30	42	72	40	72	72	72	72
64 Port Dover	44	45	89	56	53	87	87	87
65 Port Elgin	51	40	91	54	91	83	91	91
66 Port Hope	87	95	182	111	75	135	182	182
67 Port Perry	50	66	116	70	116	116	116	116
68 Port Rowan	34	19	53	27	44	51	53	53
69 Prescott	33	47	80	45	42	71	80	80
70 Renfrew	83	130	213	126	127	192	213	213
71 Richmond Hill	50	33	83	49	83	75	83	83
72 Simcoe	88	78	166	95	166	110	166	166
73 Smith's Falls	59	90	149	91	134	134	149	149
74 Smithville	44	52	96	57	55	81	96	96
75 Stirling	24	37	61	37	31	61	61	61
76 Streetsville	32	22	54	29	36	52	54	21
77 Sydenham	57	90	147	83	57	127	147	147
78 Thorold	26	72	98	62	98	98	98	98
79 Tilsonburg	58	57	115	60	73	100	115	115
80 Toronto Junction	100	113	213	123	207	166	207	207
81 Trenton	52	51	103	64	65	93	102	102
82 Uxbridge	55	49	104	58	62	77	104	104
83 Vankleek Hill	76	100	176	111	100	169	176	176
84 Vienna	14	17	31	15	12	31	31	31
85 Walkerton	80	74	154	98	89	144	154	154
86 Wardsville	24	15	39	23	28	37	39	39
87 Waterdown	37	36	73	40	45	60	73	73
88 Waterford	39	38	77	41	65	77	77	77
89 Watford	72	80	152	92	77	119	152	152
90 Welland	74	97	171	100	95	150	171	171
91 Weston	19	28	47	23	39	40	45	45
92 Wiarton	41	51	92	48	67	87	92	92
93 Williamstown	46	61	107	67	84	107	107	107
1 Totals, High Schools	5,252	5,675	10,927	6,357	7,541	9,603	10,655	10,583
2 Totals, Collegiate Institutes	5,617	5,979	11,596	6,867	8,033	9,798	11,471	11,405
3 Grand Totals, 1901	10,869	11,654	22,523	13,224	15,574	19,401	22,126	21,988
4 Grand Totals, 1900	10,565	11,158	21,723	12,956	15,079	17,122	21,382	21,146
5 Increases	304	496	800	268	495	2,279	744	842
6 Decreases								
7 Percentages	48.26	51.74		59	69	86	98	98
8 Percentage of average to total attendance	59							

AND HIGH SCHOOLS.—*Continued.*

various subjects, and examination results.—*Continued.*

in the various branches of instruction.

	Supplementary Reading in English Literature.	Canadian History.	English History.	Ancient History.	Geography.	Arithmetic and Mensuration.	Algebra.	Geometry.	Trigonometry.	Physics.	Chemistry.
55	48	36	36	12	36	45	48	42	.....	35	20
56	195	81	95	132	72	151	199	193	23	137	96
57	180	154	154	25	130	151	178	98	24	96	22
58	99	80	83	19	55	85	98	47	3	37	15
59	104	70	70	44	60	88	104	104	10	40	22
60	171	124	124	47	124	164	171	112	1	62	34
61	197	131	141	66	131	175	197	150	9	57	20
62	250	150	125	92	177	241	241	180	15	115	47
63	72	57	57	15	72	69	72	42	.....	39	15
64	53	31	53	31	60	83	87	63	.....	56	30
65	91	71	71	36	71	83	91	64	.....	57	11
66	182	55	77	107	55	160	162	141	22	86	50
67	116	66	112	67	66	110	112	108	9	86	12
68	.....	37	37	19	36	51	51	19	.....	18	6
69	80	42	51	38	42	71	80	47	9	49	24
70	213	127	213	86	127	192	213	136	3	86	39
71	83	63	63	28	31	83	83	59	.....	42	25
72	166	120	120	63	103	125	150	140	13	110	61
73	149	134	143	45	134	139	149	79	10	79	18
74	55	55	59	33	55	96	88	60	4	68	29
75	61	31	31	30	31	61	61	61	.....	46	30
76	54	36	36	21	36	52	54	31	.....	33	1
77	147	103	103	44	103	127	147	90	.....	127	28
78	98	69	69	.....	69	98	98	98	4	30	16
79	115	73	73	42	59	100	115	71	3	55	31
80	...	172	172	88	104	167	207	119	17	109	60
81	102	65	65	37	63	94	102	69	.....	52	12
82	104	62	69	42	56	87	104	75	7	63	11
83	176	66	77	67	98	151	176	144	8	144	29
84	31	12	14	19	12	31	31	22	.....	22	15
85	154	89	121	84	64	144	154	146	20	102	48
86	25	25	37	22	21	37	39	35	.....	32	14
87	73	45	45	28	45	59	73	73	.....	27	20
88	77	60	65	24	60	72	72	42	5	42	17
89	96	44	56	108	44	119	152	108	12	105	96
90	122	58	148	50	100	150	171	119	10	87	33
91	44	39	39	15	39	40	45	23	2	24	12
92	92	67	67	34	64	87	89	89	2	53	23
93	107	84	84	23	80	107	107	74	.....	40	1
1	9,779	6,812	7,511	3,951	6,711	9,618	10,583	8,071	546	5,936	2,631
2	11,049	7,285	8,497	3,988	7,079	9,853	10,830	7,921	1,021	5,799	2,830
3	20,828	14,097	16,008	7,939	13,790	19,471	21,413	15,992	1,567	11,735	5,461
4	20,152	14,099	15,947	7,553	12,410	17,008	20,567	15,609	1,325	10,265	5,723
5	676	.....	61	386	1,380	2,463	846	383	242	1,470	.....
6	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	262
7	92	63	71	35	61	86	95	71	7	52	24
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

COLLEGIATE INSTITUTES

II. —Table I.—Attendance, Pupils in the

High Schools.	Number of pupils in the various branches of instruction.—*Con.*												
	Botany.	Zoology.	Latin.	Greek.	French.	German	Writing.	Bookkeeping and Commercial Transactions.	Stenography.	Typewriting.	Drawing.	Temperance and Hygiene.	Vocal Music.
55 Omemee	7	...	45	1	25	10	7	7	.....	.....	7	..	....
56 Orangeville	47	5	177	8	77	21	27	50	..	.....	50	..	....
57 Oshawa	106	10	148	6	84	39	129	129	90	83	106	..	66
58 Paris	52	..	78	..	35	17	52	54	.....	.....	50	..	...
59 Parkhill	30	2	102	6	44	7	31	31	.....	.....	31	..	....
60 Pembroke	35	...	141	....	133	7	81	114	.....	.....	114	..	....
61 Petrolea	101	....	187	6	142	2	47	47	.....	.....	131	..	...
62 Picton	76	...	209	7	227	52	61	96	24	.....	111	..	...
63 Port Arthur	30	....	40	....	42	.....	57	57	.....	.....	57	..	....
64 Port Dover	37	....	82	2	27	12	38	38	...	.....	38	..	....
65 Port Elgin	46	...	88	...	57	1	48	48	...	.....	48	..	....
66 Port Hope	40	5	160	7	135	16	41	51	51	50	30	..	....
67 Port Perry	66	....	99	6	65	7	75	75	30	.....	80	..	84
68 Port Rowan	44	...	39	1	27	2	44	44	.....	.....	44	..	....
69 Prescott	33	....	68	...	38	..	33	33	.....	.....	33	..	....
70 Renfrew	77	....	213	19	198	15	77	97	81	32	77	.	....
71 Richmond Hill	31	....	75	6	71	6	55	37	13	11	31	..	...
72 Simcoe	54	..	145	8	100	25	100	54	30	.....	54	..	....
73 Smith's Falls	104	1	136	2	138	16	108	108	32	36	108	..	....
74 Smithville	33	5	191	....	28	.....	28	30	23	....	28	..	....
75 Stirling	15	....	61	....	12	....	15	15	.....	.....	15	..	....
76 Streetsville	33	....	53	....	31	....	33	33	....	....	33	..	....
77 Sydenham	56	....	145	..	55	10	57	57	.....	....	57	..	....
78 Thorold	10	....	60	..	36	.....	10	56	56	56	40	..	....
79 Tilsonburg	28	...	104	....	68	2	36	36	.....	....	32	..	....
80 Toronto Junction	102	7	180	8	99	38	102	102	....	.....	75	..	....
81 Trenton	29	....	72	....	55	7	49	59	14	....	56	..	....
82 Uxbridge	24	....	91	3	91	18	40	40	....	.....	40	.	....
83 Vankleek Hill	66	...	170	...	138	4	66	66	....	.....	66	..	....
84 Vienna	9	....	29		9	....	12	12	.....	.....	9	..	....
85 Walkerton	40	3	150	16	63	78	40	40	..	....	40	..	...
86 Wardsville	12	....	39	....	17	5	28	28	.....	.....	28	..	....
87 Waterdown	28	....	63	....	55	3	28	28	.....	....	28	..	....
88 Waterford	35	...	70	1	40	6	42	42	....	....	42	..	....
89 Watford	44	....	187	....	53	12	44	44	.....	.....	44	..	....
90 Welland	82	....	166	7	114	15	43	74	.....	.....	68	..	....
91 Weston	22	....	33	....	11	3	20	22	7	11	20	..	....
92 Wiarton	34	....	80	3	30	5	34	34	.....	.....	34	..	....
93 Williamstown	33	....	102	....	61	40	37	37	.....	....	37	..	....
1 Totals, High Schools	4,192	68	9,779	269	6,036	1,143	4,488	4,816	949	466	4,828	..	218
2 Totals, Coll. Institutes	4,064	241	9,250	403	6,988	1,922	4,165	5,235	2,242	1,200	4,892	..	30
3 Grand Totals, 1901	8,256	309	19,029	672	13,024	3,065	8,653	10,051	3,191	1,666	9,720	.	248
4 Grand Totals, 1900	8,626	238	18,073	853	12,650	3,894	8,511	9,712	2,692	983	9,345	76	357
5 Increases	.. .	71	956	....	374	....	142	339	499	683	375	..	
6 Decreases	370	....	.... .	181	.....	829	.....	.. ..	.....	....	.....	76	109
7 Percentages	36	1	84	3	58	14	38	44	14	7	43	..	1

AND HIGH SCHOOLS.—*Continued.*

various subjects, and examination results.—*Concluded.*

	Drill, Calisthenics and Gymnastics.	Agriculture.	Manual Training.	Examination results.															
				No. passed Junior Leaving Pt. I. Exam.	No. of Honors obtained by such pupils.	No. passed Junior Leaving Pt. II. Exam.	No. of Honors obtained by such pupils.	No. passed Commercial Diploma Exam. Pts. I. and II.	No passed Commercial Diploma Exam. Pt. II.	No. passed Senior Leaving Pt. I. Exam	No. of Honors obtained by such pupils.	No. passed Senior Leaving Pt. II. Exam.	No. of Honors obtained by such pupils.	No. passed Departmental Matriculation Exam.	No. passed Junior Matriculation Exam. held by any University.	No. of first-class Junior Matriculation Honors taken by pupils.	No. of second-class Junior Matric. Honors taken by pupils.	No. passed Senior Matriculation Exam. held by any University.	No. of first-class Senior Matriculation Honors taken by pupils.	No. of second-class Senior Matric Honors taken by pupils.	No. passed Entrance Exam. other than D'p'm'l, for any prof's'n.
55				5		3								2							
56				23		26				4		4		13	1						2
57				15	2	13	2			5		3		11		2					
58	24			7		3				2				1							
59	57			13		3				2		1		5							
60	171			6	1	6	1							6		1					2
61	10			13		10				3		3		8	1			1			
62				21	2	20				1	1	2	1	7	11	6	7	1			3
63				5		3								6	1	1					1
64				13	2	4								4							
65				15	3	12									2						
66				21	2	22	1			4		4	1	2		7	1				
67	116			10		10				4		2		3	5	4	1				2
68				2											3						
69				11	1	4				1		2		1	1						
70	83			37		15								4	1			1	1		
71	83			5		4															
72	90			8	1	13	1			2		2		7							
73				15	4	15	1			3		2		5							
74				18		2						1		2							
75				17		3															
76				4		7															
77	45			22		17								8							
78				6		6								3							
79				7	1	5								5							2
80				22	2	27	1			8	1	6		4	1	6					1
81	103			10	1	9		1	1					15							
82	100			9		17	1							7				1			
83	169			20	1	15				4				5			1				2
84	12			4		3															
85	62			17	2	16				5				7		5	2				3
86				12		1								4							
87				5	1	4															
88				8		5															
89				17		13				3		4									
90				19		11				2				9							
91				6		1															1
92				15		6				1		2		2							
93				10		7								1	3						
1	2,983	106		1,156	73	841	11	2	3	133	3	86	3	413	44	48	35	13	14	15	26
2	9,445	44	254	839	57	646	10	13	35	173	12	139	10	499	132	240	187	29	33	14	64
3	12,428	150	254	1,995	130	1,487	21	15	38	306	15	225	13	912	176	288	222	42	47	29	90
4	12,230	54	68	2,471	5	1,482	1	14	29	306	29	306	40	938	253	301	253	62	69	71	154
5	198	96	186		125	5	20	1	5												
6				476							14	81	27	26	77	13	31	20	22	42	64
7	55	.6	1	9		6				1.3		1		4	.8	1	1	.2			.4

COLLEGIATE INSTITUTES

III.—Table K.—Miscellaneous

Collegiate Institutes.	Brick, stone or frame school house.	Number of acres in playground.	Schools under United Board.	Equipment.									Religious exercises.			
				Value of Library (not including Supplementary Reading in English Literature.	Value of Supplementary Reading in English Literature.	Value of Scientific Apparatus.	Value of Charts, Maps and Globes.	Value of Models for Drawing.	Value of Gymnasium (not including Equipment.)	Value of Appliances of Physical Education.	Value of Museum of Natural History, etc.	Value of School Buildings, Grounds, and Furniture, not included in preceding items.	Schools using authorized Scripture Readings.	School opened with prayer.	Schools closed with prayer.	Schools using Bible.
				$	$	$	$	$	$	$	$	$				
1 Aylmer	B	4	..	614	9	700	140	28	680	85	300	15,000	...	1	..	..
2 Barrie	B	3	..	612	....	704	118	5	1,730	90	....	7,375	...	1	1	..
3 Brantford	B	½	..	613	48	863	108	27	1,000	128	....	18,000	...	1	..	1
4 Brockville	S	3	..	663	76	1,001	179	10	....	299	....	25,770	...	1	..	..
5 Chatham	B	2	..	733	....	1,340	167	10	600	124	50	30,000	1	1	..	1
6 Clinton	B	3½	..	674	....	817	125	5	765	66	20	10,500	1	1	..	1
7 Cobourg	B	1	..	611	66	599	110	...	668	217	....	5,000	1	1	..	..
8 Collingwood	B	1	..	640	10	640	82	6	1,229	29	....	15,000	...	1	..	..
9 Galt	S	8½	..	1,050	....	1,020	67	9	1,220	231	27	20,000	1	1	..	..
10 Goderich	B	¼	..	616	21	658	71	...	2,500	200	...	1,600	1	1	..	..
11 Guelph	S	4	1	906	31	822	144	12	2,500	557	50	12,000	....	1	..	..
12 Hamilton	B	3½	1	977	...	1,480	146	.	....	909	50	156,919	1	1	..	1
13 Ingersoll	B	2	1	594	47	738	121	4	811	231	...	18,000	1	1	..	..
14 Kingston	B	2	1	640	108	640	62	25	....	..	100	35,000	1	1	1	1
15 Lindsay	B	2	1	1,068	98	1,015	139	10	600	126	40	31,000	..	1	..	..
16 London	B	3	1	869	...	2,679	169	41	.....	298	700	80,000	....	1	..	..
17 Morrisburg	B	1	1	653	32	1,205	132	17	980	188	140	12,400	1	1	..	..
18 Napanee	B	3½	1	776	74	895	126	....	800	252	25	26,000	....	1	.	1
19 Niagara Falls	B	5¾	..	655	70	618	87	..	1,063	118	....	27,264	...	1	..	1
20 Orillia	B	1½	..	579	29	769	110	68	1,800	278		19,000	....	1	..	1
21 Ottawa	S	1½	..	1,090	73	1,425	270	150	2,040	184	100	70,000	1	1	1	1
22 Owen Sound	B	1	1	1,300	41	2,098	113	20	.....	91	50	25,000	....	1	1	..
23 Perth	B	4	1	698	33	846	155	10	560	267	500	19,500	1	1	..	..
24 Peterborough	B	2½	1	598	115	866	149	25	600	160	....	.....	....	1	1	..
25 Ridgetown	B	1¾	..	605	10	1,086	135	48	900	90	25	10,000	...	1	1	..
26 St. Catharines	B	¼	..	631	....	755	127	18	700	75	50	15,000	1	1	.	1
27 St. Marys	B	2	..	603	45	626	114	25	700	82	....	16,000	...	1	1	..
28 St. Thomas	B	2¼	1	815	55	916	110	18	983	374	....	20,000	...	1	..	..
29 Sarnia	B	2⅓	1	717	....	616	102	...	1,380	168	...	40,000	....	1	1	..
30 Seaforth	B	2¾	..	765	...	731	138	84	600	66	50	15,250	1	1	1	..
31 Stratford	B	8	..	901	10	1,118	220	26	.	117	....	35,000	1	1	..	..
32 Strathroy	B	1¼	..	730	132	894	114	28	380	102	..	10,000	1	1	..	..
33 Toronto (Harbord)	B	1½	..	918	202	2,085	174	23	4,000	710	....	88,500	...	1	..	..
34 " (Jameson)	B	1½	..	1,408	192	2,225	155	15	4,000	790	....	62,000	....	1	1	1
35 " (Jarvis)	B	1¾	..	1,366	....	933	411	39	8,257	643	20	56,000	....	1	1	..
36 Whitby	B	1	1	621	....	451	94	10	850	209	....	8,000	...	1	..	1
37 Windsor	B	2	1	829	....	974	140	35	3,000	200	200	14,000	....	..	..	..
38 Woodstock	B	1	..	986	77	1,380	148	15	2,000	174	80	14,000	1	1	..	..
Totals	B S 34 4	93¼	15	30,124	1,704	39,228	5,272	866	49,896	8,928	2,577	.....	16	37	11	12

AND HIGH SCHOOLS.—*Continued.*

Information.

and other cises.		Number of pupils in—				Number of pupils from—			Destination of pupils.						Occupation of parents.				
Religious instruction imparted.	Commencement exercises.	Form I.	Form II.	Form III.	Form IV.	Municipalities composing the High School District.	Municipalities within the County.	Other counties.	Number who entered Mercantile life.	Number who became occupied with Agriculture.	Number who entered the professions of Law, Medicine and the Church.	Number who became teachers.	Number who entered any other profession	Number who left for other occupations.	Commerce.	Agriculture.	Mechanical Occupations.	Professions.	Without occupation.
1 .. 1		41	35	50	15	66	73	2	7	11	1	12	....	8	23	80	27	10	1
2		87	74	121	28	162	140	8	12	5	8	29	2	2	76	110	70	36	18
3 .. 1		113	112	101	32	271	85	2	21	5	2	10	4	9	95	83	148	32	....
4 .. 1		84	57	98	34	201	70	2	15	5	13	5	9	25	86	86	76	25	....
5 .. 1		80	148	88	22	240	94	4	30	20	5	20	2	5	123	80	90	45	....
6 .. 1		64	41	57	19	85	92	4	10	5	....	17	3	10	53	65	38	14	11
7		68	55	28	10	108	53		30	5	3	20	..	4	56	49	43	11	2
8		42	54	65	18	110	58	11	6	14	4	11	..	...	33	42	90	14	....
9 .. 1		95	78	47	8	149	63	16	15	7	8	13	22	10	27	46	125	17	13
10 .. 1		107	42	87	26	169	85	8	12	8	4	25	1	20	61	90	69	35	7
11 .. 1		75	86	66	32	219	28	12	19	1	1	8	7	25	87	32	64	31	45
12 .. 1		200	132	179	123	522	73	39	60	20	8	40	7	75	324	80	138	70	22
13 .. 1		35	66	31	7	75	52	12	5	4	2	6	1	22	36	59	27	14	3
14		290	66	88	21	399	56	10	13	2	8	5	....	67	166	39	142	87	31
15 .. 1		69	43	114	25	154	87	10	8	12	11	15	...	17	87	77	40	25	22
16		322	250	213	75	725	118	19	74	9	12	23	14	117	328	86	212	75	159
17 .. 1		38	46	106	22	84	125	3	5	2	4	18	4	14	15	98	79	9	11
18 .. 1		105	68	49	24	*244		2	5	13	2	10	1	15	67	87	41	25	26
19 .. 1		66	89	72	18	125	102	18	12	4	7	10	3	35	71	63	73	20	18
20		39	92	90	21	160	50	32	5	3	3	15	3	32	70	48	48	31	45
21 .. 1		286	92	75	36	404	72	13	25	18	11	15	12	24	198	71	85	101	34
22		94	71	155	74	201	122	71	15	11	3	52	8	37	73	116	85	49	71
23 .. 1		114	34	47	16	140	68	3	11	6	....	12	3	32	52	70	53	25	11
24		105	65	63	19	198	54	....	12	....	...	13	....	20	77	38	87	28	22
25 .. 1		39	38	76	22	85	88	2	12	18	4	10	4	2	21	68	42	18	26
26 .. 1		129	111	61	24	220	100	5	20	13	9	17	4	22	93	66	87	23	56
27 .. 1		54	50	89	35	126	55	47	16	15	2	7	7	11	65	97	47	10	9
28		107	196	71	30	301	103	..	54	25	7	19	5	15	171	103	94	13	23
29 .. 1		129	46	59	13	182	64	1	11	11	....	9	2	40	48	53	96	21	29
30		45	47	82	30	88	111	5	10	11	3	28	3	5	48	115	24	9	8
31 .. 1		108	101	74	36	239	60	20	25	4	7	12	..	35	77	69	102	24	47
32 .. 1		56	67	45	14	89	90	3	10	40	5	12	20	20	49	86	19	16	12
33 .. 1		164	207	111	56	534	4	...	44	...	3	7	1	73	273	4	98	70	93
34 .. 1		158	112	55	25	335	10	5	18	4	4	4	10	64	135	15	110	65	25
35 .. 1		130	180	141	30	471	10	...	89	17	...	21	....	...	270	12	80	88	31
36 .. 1		53	73	30	14	102	67	1	12	21	4	10	...	8	59	66	29	26	10
37 .. 1		119	131	62	16	237	91	....	40	5	5	4	8	40	110	51	117	20	30
38 .. 1		97	121	72	25	194	110	11	....	..	..	....	....	....	109	84	48	33	41
.. 28		4,007	3,376	3,118	1,095	8,414	2,781	401	788	374	173	564	170	958	3,792	2,584	2,943	1,265	1,012

* And from the county.

COLLEGIATE INSTITUTES

III.—Table K.—Miscellaneous

High Schools.	Brick, stone or frame school house.	Number of acres in playground.	Schools under United Board.	Equipment.									Religious and exer			
				Value of Library (not including Supplementary Reading in English Literature).	Value of Supplementary Reading in English Literature.	Value of Scientific Apparatus	Value of Charts, Maps and Globes.	Value of Models for Drawing.	Value of Gymnasium (not including Equipment).	Value of Appliances for Physical Education.	Value of Museum of Natural History, etc.	Value of School Buildings, Grounds and Furniture, not included in preceding items.	Schools using authorized Scripture Readings.	Schools opened with prayer.	Schools closed with prayer.	Schools using the Bible.
				$	$	$	$	$	$	$	$	$				
1 Alexandria...	B	1¼	..	256	....	370	85	....	.....	.....	.....	8,000	....	1	..	..
2 Almonte	S	1	1	819	69	430	75	12	.....	8	....	379	....	1	1	1
3 Arnprior	B	1	1	310	20	361	57	....	.....	38	....	8,225	....	1	1	..
4 Arthur.....	B	3	..	240	31	550	27	31	6	.....	....	5,600	....	1	..	..
5 Athens.....	S	2	..	435	64	376	69	10	....	4	....	6,000	1	1	..	..
6 Aurora.....	B	3	..	329	73	443	69	8	.....	.....	....	8,500	....	1	..	1
7 Beamsville ...	B	2	1	293	....	281	70	..	.....	.....	....	2,600	....	1	..	..
8 Belleville... .	B	1½	1	286	49	472	162	21	.....	.....	.....	.....	....	1	1	1
9 Berlin.....	B	3	..	384	2	1,182	24	20	.....	.....	150	10,500	1	1	..	1
10 Bowmanville .	B	2½	..	540	32	476	60	8	.....	.....	....	15,200	1	1	..	1
11 Bradford	B	3	..	290	16	328	49	42	.....	25	25	6,000	....	1	1	1
12 Brampton	B	5	..	400	56	588	67	44	.....	10	25	8,000	....	1	1	..
13 Brighton	B	½	1	279	28	303	37	....	.....	.....	....	2,400	1	1	1	..
14 Caledonia	B	2	1	417	....	559	14	4	.....	.....	....	10,000	....	1	1	..
15 Campbellford.	B	½	1	296	....	436	29	....	.....	.....	....	12,000	1	1	..	..
16 Carleton Place	S	1	1	518	171	441	65	4	.....	3	....	9,000	....	1	..	..
17 Cayuga.....	B	1¾	..	176	....	335	23	....	.....	.....	....	4,000	....	1	..	..
18 Colborne	B	...	1	250	9	321	87	5	.....	.....	....	830	1	1	..	..
19 Cornwall	B	½	..	471	....	522	158	13	....	.....	....	15,000	1	1	1	..
20 Deseronto	B	3	..	271	33	395	86	4	300	210	50	18,000	..	..	..	..
21 Dundas ...	B	2¾	1	453	....	516	109	20	.....	39	....	6,000	....	1	1	1
22 Dunnville	B	¼	..	359	18	457	65	23	.....	.....	....	5,500	....	1	..	..
23 Dutton.....	B	1	..	201	18	511	31	....	.....	.....	....	4,800	....	1	..	..
24 Elora	S	⅓	..	184	29	348	43	2	.....	.....	....	5,000	1	1	..	1
25 Essex	B	3¼	..	264	65	458	69	28	700	196	....	10,000	1	1	..	..
26 Fergus	S	⅝	1	234	17	240	65	....	.....	.....	....	6,000	....	1	..	..
27 Forest	B	2	..	306	....	306	62	21	.....	.....	....	10,000	....	1	1	1
28 Fort William.	B	1½	..	65	49	261	57	3	..	.....	....	.....	1	1	..	..
29 Gananoque...	B	1	1	471	36	485	108	....	.....	.....	....	25,000	1	1	..	..
30 Georgetown ..	B	4	..	213	25	346	63	10	....	5	....	12,782	1	1	..	..
31 Glencoe	B	2	..	317	39	566	55	28	....	.....	....	10,000	....	1	..	1
32 Gravenhurst..	B	7½	..	160	28	357	46	....	.....	.....	....	7,000	....	1	1	..
33 Grimsby	F	1	..	166	6	295	20	10	.....	.....	....	2,000	1	1	..	..
34 Hagersville...	B	1½	..	314	....	422	54	28	.....	.....	....	7,000	....	1	1	1
35 Harriston	B	3	..	153	7	371	56	28	.....	.....	....	8,500	1	1	1	..
36 Hawkesbury..	B	1	1	554	5	393	45	....	.....	.....	50	13,000	....	1	..	..
37 Iroquois	B	1¼	..	610	6	1,029	133	18	.....	27	250	15,000	1	1	..	..
38 Kemptville ...	B	2	1	300	....	410	68	..	.....	18	....	9,000	....	1	..	..
39 Kincardine ...	B	4	1	456	75	628	89	34	....	14	....	6,000	1	1	..	1
40 Leamington ..	B	1½	..	257	48	419	87	32	....	11	....	....	1	1	..	..
41 Listowel.....	B	2	..	333	....	384	64	....	250	42	....	7,000	....	1	..	..
42 Lucan	B	3	..	217	85	601	73	18	.....	.....	....	10,000	....	1	1	..
43 Madoc	B	1	..	172	....	388	90	....	.....	.....	....	8,000	....	1	..	1
44 Markham	B	2	..	261	6	754	46	38	....	13	....	6,000	1	1	1	1
45 Meaford.....	B	3½	..	259	7	492	46	....	1,250	169	....	12,500	....	1	..	1
46 Mitchell	B	¾	..	232	....	357	64	21	566	225	1	13,000	1	1	..	..
47 Mount Forest.	B	2½	..	390	33	519	38	....	.....	.....	....	12,000	1	1	..	..
48 Newburgh....	S	1½	1	426	12	331	58	....	.....	.....	....	2,500	....	1	1	..
49 Newcastle....	B	2	1	156	....	294	46	4	.....	.....	....	7,000	1	1	..	..
50 Newmarket ..	B	2	..	158	35	394	69	20	350	87	....	11,000	1	1	..	..
51 Niagara.....	B	½	..	144	....	142	61	15	.....	.....	....	3,500	....	1	1	..
52 Niagara F'ls S.	B	2	..	239	29	344	41	3	.....	30	....	10,000	....	1	..	..
53 Norwood	B	8	1	362	....	298	18	....	.....	2	....	7,000	....	1	..	1
54 Oakville	B	¾	1	285	2	251	25	....	.....	.....	....	3,600	1	1	..	..

AND HIGH SCHOOLS.—*Continued.*

Information.—*Continued.*

other cises.	Number of pupils in—				Number of pupils from—			Destination of pupils.					Occupation of parents.				
Religious instruction imparted.	Commencement Exercises.	Form I.	Form II.	Form III.	Form IV.	Municipalities composing the High School District.	Municipalities within the county.	Other counties.	Number who entered Mercantile life.	Number who became occupied with Agriculture.	No. who entered the professions of Law, Medicine and the Church.	Number who became teachers.	No. who entered any other profession.	Number who left for other occupations.	Commerce.	Agriculture.	Mechanical Occupations.	Professions.	Without occupation.
1..	1	59	31	27	....	102	10	5	1	....	2	3	....	9	8	72	34	3	....
2..	..	37	51	45	1	97	27	10	3	4	7	11	3	6	35	26	61	6	6
3..	..	50	31	33	2	89	19	8	....	....	....	10	....	16	6	20	86	2	2
4..	1	35	26	36	9	54	51	1	8	7	2	7	....	2	27	50	16	5	8
5..	1	38	46	68	5	74	83	....	4	5	2	7	1	1	26	89	25	9	8
6..	1	32	24	27	7	48	40	2	8	23	6	16	12	25	18	38	19	9	6
7..	..	32	16	14	....	35	27	....	3	3	....	2	....	6	19	29	6	4	4
8..	1	151	155	47	9	316	44	2	15	7	5	12	2	8	98	91	99	19	55
9..	1	58	46	36	7	81	66	....	5	4	3	6	3	17	47	19	37	26	18
10..	1	31	45	26	9	70	38	3	3	....	2	4	....	5	18	27	48	6	12
11..	1	30	38	39	....	47	60	....	6	1	....	7	1	2	18	59	20	10	....
12..	1	72	36	47	27	98	80	4	13	8	4	16	3	27	40	81	35	16	10
13..	..	27	18	25	....	34	36	....	2	....	1	2	....	....	8	34	5	5	18
14..	1	30	22	36	6	36	43	15	2	7	....	2	....	6	20	53	6	12	3
15..	..	45	28	27	2	64	34	4	5	....	....	5	....	2	13	30	35	6	18
16..	..	81	27	34	8	121	26	3	7	....	..	5	3	22	32	30	51	14	23
17..	1	18	26	37	8	23	66	....	1	4	....	2	....	16	16	48	10	9	6
18..	..	19	17	28	..	47	17	....	2	6	2	6	4	4	30	24	7	3	....
19..	..	68	31	77	16	114	68	10	5	4	2	12	....	40	42	50	88	12	....
20..	..	44	31	36	3	84	24	6	3	....	1	4	....	6	23	27	52	6	6
21..	..	47	39	43	....	128	....	1	....	....	....	5	1	....	52	28	28	16	5
22..	..	47	41	33	4	80	39	6	5	6	1	5	....	13	39	38	33	12	3
23..	1	35	49	75	20	68	99	3	1	5	5	6	....	....	4	54	102	3	7
24..	..	26	31	38	5	39	59	2	2	11	1	8	1	8	17	46	20	7	10
25..	1	33	26	28	12	49	48	2	6	3	2	7	1	....	24	44	18	8	5
26..	..	40	34	30	....	83	21	....	12	6	6	15	....	....	25	40	30	9	....
27..	..	29	37	35	....	52	46	3	3	....	....	5	1	16	20	38	18	7	18
28..	..	30	14	7	1	52	....	....	6	....	....	3	....	4	12	1	28	5	6
29..	1	38	43	41	....	87	25	10	4	1	....	8	2	8	36	36	33	15	2
30..	..	25	29	37	7	42	27	29	2	4	....	7	..	8	26	37	22	8	5
31.	1	23	27	32	7	44	40	5	4	1	3	4	1	15	14	42	8	7	18
32..	..	23	10	26	1	45	10	5	1	....	1	8	1	5	16	12	26	2	4
33 .	1	20	20	13	....	31	16	6	5	3	1	....	....	4	9	22	11	5	6
34..	1	23	20	19	7	35	34	....	1	4	...	3	3	7	15	33	12	4	5
35..	..	32	29	32	6	57	18	24	....	....	3	7	..	29	14	30	36	10	9
36..	1	22	14	26	11	28	41	4	2	3	1	2	2	4	13	26	31	3	....
37..	1	47	42	31	7	44	69	14	4	5	....	4	1	14	13	67	26	13	8
38..	..	42	48	79	13	65	44	73	...	....	....	....	..	....	41	62	55	20	4
39..	1	44	34	49	16	67	74	2	6	1	6	12	....	10	41	75	14	13	....
40..	1	29	39	48	10	64	55	7	7	2	2	9	....	12	28	39	29	12	18
41..	1	48	37	68	....	82	42	29	10	2	2	6	...	20	46	54	34	16	3
42.	1	31	35	44	13	55	68	....	4	2	....	9	1	6	26	65	10	10	12
43..	..	33	21	31	..	44	40	1	2	5	1	7	3	3	12	36	20	12	5
44..	1	57	51	66	23	26	159	12	11	4	9	10	....	12	26	91	56	12	12
45..	1	26	26	50	17	63	53	3	3	6	3	14	....	9	15	47	17	20	20
46..	1	38	28	40	...	65	36	5	3	2	1	10	1	8	19	39	35	7	6
47..	1	39	42	58	15	90	25	39	14	5	4	9	...	9	42	49	35	19	9
48..	1	50	67	52	....	47	122	....	10	30	6	5	6	4	12	120	20	7	10
49..	1	22	10	12	....	23	21	....	5	2	....	....	....	5	5	14	14	5	6
50..	1	43	35	29	9	57	56	3	4	2	....	7	....	5	8	44	49	9	6
51..	..	17	15	10	1	22	20	1	1	1	....	....	....	6	4	15	16	5	3
52..	..	40	37	23	....	96	3	1	9	10	....	2	....	10	17	38	35	4	6
53..	..	37	47	35	....	64	41	14	6	10	2	11	4	10	12	61	34	4	8
54..	1	25	11	23	....	31	28	....	2	....	....	1	3	2	7	23	20	4	5

COLLEGIATE INSTITUTES

III.—Table K.—Miscellaneous

High Schools.	Brick, stone or frame school house.	Number of acres in playground.	Schools under United Board.	Equipment.									Religious and exercises.			
				Value of Library (not including Supplementary Reading in English Literature).	Value of Supplementary Reading in English Literature.	Value of Scientific Apparatus.	Value of Charts, Maps and Globes.	Value of Models for Drawing.	Value of Gymnasium (not including Equipment).	Value of Appliances for Physical Education.	Value of Museum of Natural History, etc.	Value of School Buildings, Grounds, and Furniture, not included in preceding items.	Schools using authorized Scripture Readings.	Schools opened with prayer.	Schools closed with prayer.	Schools using Bible.
				$	$	$	$	$	$	$	$	$				
55 Omemee	F	1	1	232	7	260	44			3		3,000		1	1	
56 Orangeville	B	2½		525	9	515	57	26				11,250		1	1	
57 Oshawa	B	3	1	376		391	120	14			50	9,000	1	1		
58 Paris	B	4	1	344	5	545	108	9				6,000	1	1	1	
59 Parkhill	B	3	1	290	26	483	93	3		44	50	8,300		1		
60 Pembroke	B	¾	1	237	19	474	92	12				13,000		1		
61 Petrolea	B	2		390		359	44	5				7,500	1	1		1
62 Picton	B	3		642	9	663	118	45				8,000		1	1	
63 Port Arthur	B	4		240		309	48				20	15,000		1	1	
64 Port Dover	B	2	1	321	1	432	19	20		7		9,000	1	1	1	
65 Port Elgin	B	1½		182	59	404	43	30				4,500		1		1
66 Port Hope	B	¾		459	33	525	78	8		10		15,000	1	1		
67 Port Perry	B	1¾	1	277	3	456	45	8	200	30	15	12,000		1	1	
68 Port Rowan	B	2	1	93		229	44			8		5,000	1	1		
69 Prescott	B	1	1	194	54	367	112			29		18,235		1		
70 Renfrew	B	3	1	226	39	312	37	12				10,000	1	1	1	1
71 Richmond Hill	B	1½	1	122	18	255	54	35		2		6,500	1	1		
72 Simcoe	B	4	1	265	41	671	134	29		29		14,000	1	1	1	1
73 Smith's Falls	B	¾	1	428	125	495	67	5				8,000		1	1	
74 Smithville	B	1½	1	107		279	34					3,200	1	1	1	
75 Stirling	B	1		160	9	273	33					4,500		1	1	1
76 Streetsville	B	¼		177	32	212	71	2			25	3,000		1	1	1
77 Sydenham	S	1½		262	91	289	31					15,000		1	1	
78 Thorold	B	2¼		258	9	339	79	3		4		8,500	1	1	1	1
79 Tilsonburg	B	1¼		241	20	530	68	2			50	12,500		1	1	1
80 Toronto Junc	B	1		650		917	107	32				40,000	1	1		
81 Trenton	B	3½	1	383	8	394	81	7				6,125	1	1		
82 Uxbridge	B	¾	1	276	43	382	52	4				7,000	1	1	1	
83 Vankleekhill	B	2½		505	4	712	37	3	3,50	22		12,000		1		
84 Vienna	B	2	1	224	51	251	105	8	500	51		3,500	1	1	1	
85 Walkerton	B	1¼		330		457	54	3		7		8,000	1			
86 Wardsville	B	2		218	17	191	73	33				4,500		1	1	
87 Waterdown	S	3¼	1	206	6	330	55	5				5,000		1	1	1
88 Waterford	B	3		319	4	408	61					7,800	1	1	1	
89 Watford	B	2		331		432	110	47		20		8,000				
90 Welland	B	1		185	27	526	28					12,000		1	1	1
91 Weston	B	½		273	3	434	105	15				5,000		1		1
92 Wiarton	S	1½		312	15	275	45					8,500		1		1
93 Williamstown	B	3		191	35	312	10					10,000		1	1	
	B. S. F.															
1 Totals, H.S	82 9 2	187¼	38	28,382	2,155	39 578	6 003	1,055	7,622	1,442	761		40	90	40	28
2 " Coll. Inst.	34 4	93¼	15	30,124	1,704	39,228	5,272	866	49,896	8,928	2,577		16	37	11	12
3 G'd totals, 1901	116 13 2	280½	53	58,506	3,859	78,806	11,275	1,921	57,518	10,370	3,338		56	127	51	40
4 " 1900	116 13 2	274¼	53	57,384	3,883	76,599	11,137	1,791	53,846	10,278	3,188		62	126	47	41
5 Increases		6¼		1,122		2,207	138	130	3,672	92	150			1	4	
6 Decreases					24								6			1
7 Percentages			40										43	97	39	31

AND HIGH SCHOOLS.—*Concluded.*

Information.—*Concluded.*

other cises.		Number of pupils in—				Number of pupils from—			Destination of pupils.						Occupation of parents.				
Religious instruction imparted.	Commencement Exercises.	Form I.	Form II.	Form III.	Form IV.	Municipalities composing the High Schools District.	Municipalities within the County.	Other counties.	Number who entered Mercantile life.	Number who became occupied with Agriculture.	Number who enter'd the professions of Law, Medicine and the Church.	Number who became teachers.	Number who entered any other profession.	Number who left for other occupations.	Commerce.	Agriculture.	Mechanical occupations.	Professions.	Without occupation
55 ..		7	29	12	..	25	21	2	1	2	3	3	1	3	3	25	11	5	4
56 ..	1	37	35	104	23	88	66	45	7	6	6	29	6	19	43	80	33	18	25
57 ..	1	82	48	25	25	112	49	19	16	7	....	5	....	13	40	70	48	19	3
58 ..	1	52	28	16	3	69	26	4	8	6	...	.....	...	4	20	29	30	6	14
59 ..	1	29	31	34	10	42	59	3	3	1	....	3	....	5	13	47	34	5	5
60 ..	1	58	66	46	1	135	34	2	2	3	3	8	1	23	56	34	43	26	12
61 ..		131	22	34	10	127	70	.....	15	10	4	7	15	13	53	54	72	18	....
62 ..		61	95	79	16	131	115	5	15	40	6	18	3	6	61	119	50	19	2
63 ..	1	30	27	14	1	72	....	.. .	10	5	....	6	....	7	25	10	31	5	1
64 ..	1	24	36	29	....	56	23	10	6	10	...	2	1	11	11	35	12	8	23
65 ..	1	26	29	36	...	46	42	3	4	2	1	7	1	9	25	29	13	16	8
66 ..	1	41	34	85	22	116	66	... .	5	2	3	18	4	20	46	59	41	13	23
67 ..	1	30	36	37	13	67	36	13	10	5	5	13	2	2	33	40	29	12	2
68 ..	..	34	5	14	.. .	30	22	1	5	....	.	.....	....	4	10	23	18	1	1
69 ..	1	33	9	29	9	61	17	2	7	....	2	4	1	2	22	14	20	6	18
70 ..	.	77	50	83	3	114	97	2	7	4	2	15	...	16	34	71	100	5	3
71 ..	1	31	24	28	.....	14	65	4	3	5	..	1	3	17	18	36	10	9	10
72 ..	1	54	49	50	13	71	92	3	30	21	10	20	3	3	33	68	39	19	7
73 ..	..	70	34	35	10	106	27	16	7	2	2	5	5	11	34	33	61	13	8
74 ..	..	28	27	30	11	53	40	3	.....	7	4	2	...	4	12	62	16	3	3
75 ..	..	15	16	30	....	24	36	1	1	..	....	6		1	8	32	11	8	2
76 ..	..	23	10	21	.....	17	22	15	2	4	....	6	....	5	7	32	5	1	9
77 ..	..	57	46	44	.....	147	.....	.....	2	6	3	18	....	.....	20	85	42	.....	.....
78 .	1	40	29	28	3	82	14	2	10	10	1	2	5	5	5	45	44	.....	4
79 ..	1	44	29	42	.....	71	23	21	7	11	1	4	3	17	14	45	27	9	20
80 ..	1	90	32	66	25	97	45	71	14	5	3	31	3	30	65	36	57	25	30
81 ..	1	33	32	38	.....	68	11	24	11	4	1	8	3	14	28	36	21	10	8
82 ..	1	29	33	35	7	57	47	....	10	3	3	17	....	4	16	43	26	5	14
83 ..	1	66	46	56	8	72	84	20	5	8	1	13	....	6	15	88	59	6	8
84 ..	..	9	3	19	. ..	28	.....	3	.....	3	....	2	....	.....	2	26	1	1	1
85 ..	1	41	29	64	20	78	67	9	10	17	4	19	3	4	33	51	37	20	13
86 ..	1	6	15	18	..	22	8	9	3	6	1	1	....	1	4	21	7	4	3
87 ..	1	31	14	28	....	68	4	1	4	4	...	2	...	6	9	38	7	12	7
88 ..	..	35	18	19	5	25	50	2	3	1	....	4	....	3	11	48	8	5	5
89 ..	1	44	33	63	12	45	102	5	3	16	3	16	2	4	20	87	28	10	7
90 ..	1	51	44	67	9	84	86	1	6	....	2	8	2	20	60	48	43	20	.....
91 ..	..	22	9	14	2	28	13	6	4	3	....	1	...	5	8	19	6	2	12
92 ..	1	34	23	33	2	68	16	8	5	1	1	8	2	17	18	15	34	15	10
93 .	.	67	17	23	.....	103	.....	4	.....	...	.	6	....	1	3	67	30	5	2
1 ..	58	3,790	3,016	3,534	587	6,278	3,933	716	512	459	174	686	133	821	2,192	4,163	2,919	879	774
2 ..	28	4,007	3,376	3,118	1,095	8,414	2,781	401	788	374	173	564	170	958	3,792	2,584	2,943	1,265	1,012
3 ..	84	7,797	6,392	6,652	1,682	14,692	6,714	1,117	1,300	833	347	1,250	303	1,779	5,984	6,747	5,862	2,144	1,786
4	1 85	7,644	6,264	6,345	1,470	14,166	6,390	1,167	1,331	757	368	1,171	348	1,894	5,448	6,221	5,054	1,953	1,788
5 ..	..	153	128	307	212	526	324	.....	.....	76	...	79	....	.....	536	526	808	191	.....
6	1 1	.....	.....	.....	.....	.....	.....	50	31	....	21	.....	45	115	.....	.....	.....	... .	2
7 ..	64	35	28	30	7	65	30	5	.....	....	....	.....	....	.....	26	30	26	10	8

Table L.—Protestant Separate Schools.

Statistics.	No. 5, Bromley.	No. 9, Cambridge.	No. 6, North Plantagenet.	Rama Tp.	No. 1, N. Tilbury.	L'Orignal Vill.	Pen tanguishene Town.	Totals.
Number of Schools	1	1	1	1	1	1	1	7
Receipts:	$ c	$ c	$ c	$ c	$ c	$ c	$ c	$ c
Balances from 1900	101 47	5 29	48 59	142 82	104 26	307 64	46 74	756 81
Government grants	11 25	5 55	4 35	42 88	20 50	32 75	120 23	237 51
Municipal grants	.....	.....	.....	169 00	.....	401 75	1,925 59	2,496 34
Trustees' school taxes	228 00	88 53	310 00	150 00	301 08	.....	.....	1,077 61
Other sources	.....	1 00	.....	.....	500 33	4 84	4 25	510 42
Totals	340 72	100 37	362 94	504 70	926 17	746 98	2,096 81	5,078 69
Expenditure:								
Teachers' salaries	235 00	81 25	250 00	350 00	315 74	323 48	1,434 07	2.989 54
School sites and buildings	.....	.....	29 53	.....	265 00	.....	334 00	628 53
Libraries, maps, etc	.....	.....	.....	.....	5 30	14 03	4 00	23 33
Other expenses	28 29	8 18	38 33	67 78	332 19	113 99	314 97	903 73
Totals	263 29	89 43	317 86	417 78	918 23	451 50	2,087 04	4,545 13
Balances on hand	77 43	10 94	45 08	86 92	7 94	295 48	9 77	533 56
Teachers:								
Male	.....	.....	.....	1	.....	.....	1	2
Female	1	1	1	.....	1	1	3	8
Certificates	III	Temp.	II	II	III	III	4, II	6,II;3,III; 1 Temp.
Salaries	235 00	156 00	250 00	350 00	300 00	300 00	Male, $650 00 Female, $275 00	Av. Male, $500 00 Av Fem'le, $258 00
Pupils:								
Total number attending	23	16	11	88	43	34	235	450
Boys	12	9	4	42	26	13	123	229
Girls	11	7	7	46	17	21	112	221
Average attendance	9	6	4	43	20	23	144	249
No in 1st Reader, Part I	4	3	2	26	7	4	68	114
" 1st " Part II	2	2	3	13	12	1	38	71
" 2nd "	2	5	2	13	10	7	36	75
" 3rd "	8	4	1	20	6	4	55	98
" 4th "	4	2	2	15	8	18	25	74
" 5th "	3	.....	1	1	.....	.....	13	18
" writing	20	11	11	49	43	34	235	403
" arithmetic	23	14	11	36	43	34	235	396
" drawing	21	14	11	36	43	34	235	394
" geography	12	11	6	36	24	29	235	353
" music	.....	16	11	.....	.....	.....	77	104
" grammar and composition	12	6	6	36	40	21	108	229
" English history	8	2	3	16	14	21	38	102
" Canadian history	8	2	6	16	14	21	87	154
" physiology and temperance	5	2	4	5	24	29	25	94
" drill and calisthenics	.....	16	11	88	.....	34	.....	149
" bookkeeping	3	.....	.....	1	.....	.....	13	17
" algebra	3	.....	1	1	.....	.....	13	18
" geometry	3	.....	1	1	.....	.....	13	18
" botany	.....	.....	.....	.....	.....	.....	13	13
" elementary physics	.....	.....	1	.....	.....	.....	.....	1
" agriculture	3	.....	3	.....	11	.....	.....	17
Sch. houses (brick, frame or log)	Log	Log	Frame	Frame	Brick	Brick	Brick	3B,2F,2L,
Number of maps	6	6	8	14	3	8	9	54
Number of globes	1	.....	.....	1	1	1	.....	4

Table M.—Report on Truancy.

Cities.	No. of children otherwise employed during school hours.	No. of cases of truancy reported.	No. of complaints made before Police Magistrates or J. P.s.	No. of convictions.	No. of children not attending any school.
Brantford	...	209	10	10	.....
Chatham	.....	47	2	....	.....
Guelph	3	68	.....	....	8
Hamilton	...	250	32	9	....
St. Catharines	...	70	.....	....	.....
St. Thomas	....	81	5	3	.....
Stratford	.....	43	4	4	.....
Toronto	92	485	10	3	.....
Windsor	.....	335	1	....	5
Towns.					
Almonte	.....	20	.....	....	....
Arnprior	.....	4	.....	....	.....
Aurora	.....	10	.....	....	.....
Aylmer	....	17	.....	....	.....
Barrie	.....	8	.....	....	.....
Berlin	2	2	....	....	....
Bowmanville	4	68	.....	....	.....
Brockville	.....	39	.....	....	.....
Collingwood	12	48	.....	....	.....
Cornwall	....	6	.....	....	.....
Deseronto	5	200	.....	....	20
Dundas	4	14	3	2	....
Dunnville	.....	6	.....	....	.....
Durham	.....	7	.....	....	6
Galt	2	19	.....	....	.....
Gravenhurst	...	20	.....	....	..
Ingersoll	.....	4	.....	....	.....
Lindsay	12	92	1	....	....
Milton	.....	12	...	....	.....
Newmarket	2	5	...	....	...
Niagara	.....	8	.....	....	.....
Niagara Falls	9	154	5	....	....
North Bay	5	11	...	....	.....
Orangeville	.....	2	.....	....	40
Perth	.....	8	.....	....	....
Peterborough	.....	20	1	....	....
Petrolea	7	35	.....	....	8
Prescott	....	24	3	....	....
Preston	....	40	.....	....	....
St. Mary's	.....	4	.....	....	.....
Sarnia	2	7	3	....	3
Simcoe	.....	8	.....	....	.....
Smith's Falls	...	12	.....	....	12
Stayner	2	5	3	1	.....
Thessalon	.....	2	.....	....	.....
Thornbury	.....	10	.....	....	.....
Thorold	.....	4	....	....	.....
Tilsonburg	.....	10	.....	...	.....
Toronto Junction	.....	3	.....	....	.....
Wallaceburg	7	.....	.....	....	.....
Walkerton	...	14	.....	....	.....
Welland	3	31	1	1	.....
Wiarton	.....	16	.....	...	.....
Villages.					
Ailsa Craig	.....	1	.....	....	.....
Ayr	.....	2	....	....	.....
Bath	3	8	.....	....	.....
Beamsville	.....	4	.....	....	.....
Burk's Falls	.....	30	.....	....	.....
Burlington	.....	2	.....	....	.....
Campbellford	.....	5	.....	....	.....
Colborne	.....	8	.....	...	5
Delhi	.....	2	.....	....	.....
Drayton	.....	1	.....	....	.....
Dundalk	4	18	.....	..	3
Exeter	3	3	.....	....	.....
Fergus	.....	2	.....	....	.....
Garden Island	1	.....	.....	....	.....
Georgetown	.....	47	...	....	.....
Glencoe	2	4	.....	....	.....
Marmora	.....	7	.....	....	.....
Port Dover	.....	15	.....	....	.....
Springfield	.....	1	....	....	.....
Tara	.....	8	.....	....	.....
Thamesville	.....	3	.....	....	.....
Waterford	.....	20	.....	....	.....
Weston	.....	10	1	1	.....
Totals	186	2,872	85	34	110

Table N.—Report on Kindergartens.

Municipality.	No. of Kindergartens.	No. of Teachers.	No. of pupils attending.	Average attendance.
Cities:				
Brantford	3	8	412	145
Chatham	2	3	232	99
Guelph	1	2	143	52
Hamilton	13	17	1,449	561
Kingston	3	5	167	104
London	14	28	1,044	332
Ottawa	12	20	1,074	379
Stratford	3	5	298	96
Toronto	45	126	4,788	2,049
Towns:				
Aylmer	1	1	60	47
Berlin	4	5	293	208
Cobourg	1	1	47	28
Dundas	1	1	75	47
Galt	1	2	55	46
Hespeler	1	2	101	58
Ingersoll	1	2	118	39
Niagara Falls	1	3	86	22
Owen Sound	1	2	152	49
Peterborough	2	5	187	58
Preston	1	1	81	50
Simcoe	1	1	112	39
Tilsonburg	1	1	61	30
Toronto Junction	2	4	154	65
Waterloo	1	1	70	48
Villages:				
Ashburnham	1	4	79	41
Campbellford	1	1	67	12
Totals	118	251	11,405	4,704

Table O.—Report on Night Schools.

Municipality.	No. of Night Schools.	Teachers.	Pupils attending.	Average attendance.
Brantford	1	4	114	8
St. Catharines	1	2	49	14
Toronto	9	15	620	162
Sault Ste. Marie	1	1	17	10
Totals	12	22	800	194

Table P.—General Statistical Abstract.

A General Statistical Abstract, exhibiting the comparative state and progress of Education in Ontario, as connected with Public, Separate and High Schools (including Collegiate Institutes), also Normal College and Normal and Model Schools, from the year 1867 to 1901, compiled from Returns in the Education Department.

No.	Subjects compared.	1867.	1872.	1877.	1882.	1887.	1892.	1897.	1900.	1901.
1	Population	.....	1,620,851	.....	1,926,922	.....	2,114,321	.....	.....	.....
2	School population between the ages of five and sixteen years, up to 1884, (and five to twenty-one subsequently)	447,726	495,756	494,804	483,817	611,212	595,238	590,055	580,105	574,490
3	High Schools (including Collegiate Institutes)	102	104	104	104	112	128	130	131	131
4	Normal College and Normal and Model Schools	3	3	4	6	6	6	7	8	8
5	Total Public Schools in operation	4,261	4,490	4,955	5,013	5,277	5,577	5,574	5,655	5,663
6	Total Roman Catholic Separate Schools	161	171	185	190	229	312	340	355	372
7	Grand total of all schools in operation	4,527	4,768	5,248	5,313	5,624	6,023	6,051	6,149	6,174
8	Total pupils attending High Schools (including Collegiate Institutes)	5,696	7,968	9,229	12,348	17,459	22,837	24 390	21,723	22,523
9	Total students and pupils attending Normal College, Normal and Model Schools	800	800	900	1,059	1,204	1,270	1,492	1,674	1,647
10	Total pupils attending Public Schools	382,719	433,256	465,908	445,364	462,859	448,204	441,157	432,126	426,824
11	Total pupils at ending Roman Catholic Separate Schools	18,924	21,406	24,952	26,148	30,373	37,466	41,620	42,397	43,987
12	Grand total, students and pupils attending High, Public, Separate Schools, Normal College, and Normal and Model Schools	408,139	463,430	500,989	484,918	511,875	509,777	508,659	497,920	494,981
13	Total amount paid for the salaries of Public and Separate School Teachers	$1,093,516	1,371,594	2,038,099	2,144,448	2,458,540	2,752,628	2,886,001	2,985,278	3,055,321
14	Total amount paid for the erection and repairs of Public and Separate School houses, and for libraries, apparatus, books, fuel, stationery, etc	$379,672	835,770	1,035,390	882,526	1,283,565	1,301,289	1,329,609	1,601,805	1,664,989
15	Grand total paid for Public and Separate School Teachers' salaries, the erection and repairs of school houses, and for libraries, apparatus, etc	$1,473,188	2,207,364	3,073,489	3,026,974	3,472 105	4,052,917	4,215,670	4.587,083	4,720,310
16	Total amount paid for High School (and Collegiate Institute) Teachers' salaries	$94,820	141,812	211,607	253,864	327,452	470,828	532,837	529,245	535,521
17	Total amount paid for erection and repair of High School (and Collegiate Institute) houses, maps, apparatus, prizes, fuel, books, etc	$19,190	31,360	51,417	89,857	168,160	215,871	183,139	189,356	192,611
18	Amount paid for other educational purposes*	$332,825	439,690	250,968	262,307	280,832	353,987	346,820	347,293	333,182
19	Grand total paid for educational purposes	$1,920,023	2,820,226	3,587,481	3,633,002	4,518,549	5,094,603	5,278,466	5,652,977	5,781,624
20	Total Public and Separate School Teachers	4,890	5,476	6,468	6,857	7,594	8,480	9,128	9,440	9,494
21	Total male teachers	2,849	2,626	3,020	3,062	2,718	2,770	2,784	2,630	2,459
22	Total female teachers	2,041	2,850	3,448	3,795	4,876	5,710	6,344	6,810	7,035

*Colleges and Private Schools are included for 1867 and 1872.

APPENDIX B.—*CONTINUATION CLASSES.—1901-1902.*

Inspectorate.	Name of Principal and Degree.	Professional Certificate.	No. of Teachers.	Name of School.	No. of Pupils.	Class of School. A	B	C	D
Brant	Arthur E. Green	I	4	8 S. Dumfries	11	1			
	John Hicks	II	2	8 Burford	10		1		
	Alberta A. Langs	II	1	11 Burford	4				1
	W. J. Chapman	II	1	22 Burford	3				1
	Jos. Poole	II	1	24 Burford	3				1
	K. C. Misine	II	1	4 Brantford	3				1
	Marjory A. Amy	II	1	14 S. Dumfries	3				1
	Lettie Carrow	II	1	2 Oakland	3				1
Bruce, E	R. D. McMurchy, B.A.	I	9	*Chesley, Village	80	1			
	J. W, Ward	II	3	14 Carrick	15		1		
	J. F. Loney	II	2	U 3 Amabel and Arran	5				1
	B. Cannon	II	1	11 Brant	3				1
	J. H. Lipsett	II	3	Tara, Village	10				1
Bruce, W	J. E. Hodgson, B.A.	I	7	†Paisley, Village	66	1			
	Jas. McPherson	I	3	10 Huron	19		1		
	Jos. Stalker	II	4	Lucknow, Village	20		1		
	J. H. Cunningham	I	4	Teeswater, Village	30	1			
	H. E. Fair	II	1	10 Kinloss	5			1	
	Geo. H. Bielby	III	3	Tiverton, Village	8			1	
	Bessie McKenzie	III	1	2 Culross	7			1	
	Samuel Lewis	III	1	9 Bruce	4				1
	Stanley D. Evans	III	1	10 Bruce	3				1
	Percy K. Darling	III	1	1 Huron	3				1
	H. S. Sanderson	III	1	6 Greenock	3				1
	Ernest A. Oliver	III	1	1 Culross	3				1
	Phemia McDonald	III	1	6 Kinloss	3				1
Carleton	Geo. A. Church	I	3	11 Osgoode	30	1			
	John L Bryant	I	3	Richmond, Village	17		1		
	Thos. P. Shaver	II	2	3 Huntley	12		1		
	Sara A. Heanin	II	1	7 Nepean	6			1	
	Lila MacDougall	II	1	6 Marlboro'	7			1	
	Ernest Howes	II	1	5 Gloucester	7				1
	Bessie Lancaster	II	1	5 Huntley	4				1
	Minnie Mains	II	1	4 Marlboro'	3				1
	Matthew Barrie	II	2	18 Osgoode	5				1
	Miss C. J. McEwan	I	1	2 Goulburn	7				1
Dufferin	D. Campbell	II	5	Grand Valley, Village	14	1			
	T. E. Langford, M.A.	I	6	†Shelburne, Village	44	1			
	R. A. Winter	II	2	2 Melancthon	10			1	
	L. Hunter	II	1	10 Mulmur	6			1	
	Wm. Heath	II	2	17 Mono	10			1	
	M. A. Noble	III	1	1 Mulmur	5				1
	L Carleton	III	1	11 Mulmur	5				1
Dundas	Hiram B. Fetterly	I	7	Winchester Village	28	1			
	Alice E. Timberlake	I	5	Chesterville Village	26	1			
	Horatio Loucks	I	3	12 Winchester	15		1		
	Grace Low	II	2	4 Winchester	8			1	
	David L. Collison	II	2	12 Williamsburg	7			1	
	Harold C. Fader	II	2	1 Mountain	6				1
	Eli Robinson	II	2	6 Mountain	5				1
	John A. Shaver	II	2	U 18 and 1 Williamsburg	4				1
Durham	D. Hampton	II	4	Millbrook, Village	40	1			
	F. J. Groat	II	2	11 Darlington	5			1	
	Gerald D. Byers	III	1	1 S. Monaghan	5			1	
	D. W. Clarke	III	2	15 Manvers	5			1	
	E. Earchman	III	1	1 Cartwright	3				1
	W. J. Inch	II	1	15 Clarke	3				1
	Edwin Mitchell	II	1	5 Manvers	3				1
	Ida Scott	III	1	11 Manvers	3				1
	Florence Robertson	III	1	5 S. Monaghan	3				1
Elgin	F. Tanton	I	4	5 Aldborough	24	1			
	T. D. Allingham, B.A.	I	4	6 Aldborough	25	1			
	George Stewart	II	3	Springfield, Village	23		1		
	A. C. Curtis	II	2	13 Dunwich	12		1		
	H. R. Parker	I	3	11 S. Dorchester	25		1		
	J. W. Brown	II	2	9 Southwold	10		1		
	John McFadyen	II	2	12 Southwold	20		1		
	C. A. Norman	II	2	18 Bayham	8			1	
	R. F. Whiting	II	2	7 Yarmouth	9			1	

* Three teachers doing Cont. Class work only. † Two teachers doing Cont. Class work only.

APPENDIX B.—*Continued.*

Inspectorate.	Name of Principal and Degree.	Professional Certificate.	No. of Teachers.	Name of School.	No. of Pupils.	Class of School.			
						A	B	C	D
Elgin	E. Witty	II	2	Port Stanley, Village	4				1
	Jean Anderson	II	1	8 Aldborough	6				1
	Ettie McEachran	I	1	9 Aldborough	5				1
	Mary A. McColl	II	1	14 Aldborough	4				1
	Wm. Walker	II	2	2 Bayham	4				1
	Mary Hutton	II	1	3 Bayham	4				1
	H. C. Branion	III	2	14 Bayham	4				1
	Jas. Amoss	II	2	16 Bayham	4				1
	Robt. J. McMillan	III	1	9 Dunwich	5				1
	Mary Duncanson	III	1	12 Dunwich	3				1
	Jessie Arnup	III	1	9 Malahide	7				1
	Neil J. Thomas	III	1	2 Southwold	5				1
	Lillie Woodward	III	1	3 Southwold	5				1
	Austin McLean	III	1	8 Southwold	3				1
	John C. McLennan	III	1	11 Southwold	8				1
	E. V. Turnpenny	III	1	8 Yarmouth	11				1
	F. H. Langford	III	1	9 Yarmouth	6				1
	John Flower	II	2	19 Yarmouth	8				1
	Louise McKenny	III	1	23 Yarmouth	5				1
	Jessie Ward	II	1	24 Yarmouth	4				1
Essex, N	Nellie Moynahan	II	2	6 S. Sandwich	6			1	
	Melanie McManamy	II	1	2 Maidstone	4				1
Essex, S	E. U. Dickenson, B.A.	I	5	*4 Tilbury W	29	1			
	Agnes Johnston	I	6	Amherstburg, Town	26	1			
	Fred J Voaden	II	7	Kingsville, Town	21		1		
	Wm. J Elliott	I	3	9 Colchester, S	12		1		
	J H. Madill	II	1	2 Colchester, S	11			1	
	Wm H. McGuirl	II	2	15 Gosfield, N	3				1
Frontenac	Thos. P. Maxwell	II	1	2 Storrington	5				1
	P. M. Spence	II	2	2 Kennebec	3				1
	Della Snyder	III	1	5 Hinchinbrooke	4				1
Glengarry	Wm. J. Hull	I	3	Maxville, Village	12			1	
	J. E. Galbraith	I	3	Lancaster, Village	4				1
	Wm. B. McEwan	II	3	12 Charlottenburg	8				1
Grey, E	David McK. Forrester	I	2	13 Collingwood	13		1		
	Lillian Robson	II	2	5 Euphrasia	9				1
	T. A. Wright	II	1	5 Collingwood	8				1
	Maggie Smith	II	1	7 Collingwood	4				1
	G. W. Mason, M.A.	I	2	U 4 Euphrasia	11				1
	Adam F. Fries	III	1	U 1 Euphrasia	4				1
	J. B. Gillesby	I	4	Thornbury, Town	5				1
Grey, S	T. Allan	I	7	*Durham, Town	59	1			
	J. W. Brown, B.A.	I	7	Hanover, Village	31	1			
	Jas. S. Rowe	II	4	Markdale, Village	20		1		
	J. E. Fawcett	II	3	5 Artemesia	14		1		
	W. J. Blakeston	II	4	Dundalk, Village	14			1	
	Jas. H. Coleridge	II	1	13 Egremont	7				1
	Maggie McCannel	II	1	1 Normandy	3				1
	T. A. Bell	II	2	U 12 Artemesia and Glenelg	6				1
	T. F. Andrew	II	1	9 Osprey	5				1
Grey, W	Neil S. McEachern	II	1	U 1 Holland & Sullivan	6			1	
	John A. Mackinnon	III	1	U 3 Holland & Sullivan	4				1
Haldimand	Dawson F. Aiken	I	4	10 Walpole	25	1			
	J. L. Michener, B.A.	I	2	3 Walpole	10			1	
	Wm. J. Neale	II	2	5 N. Cayuga	8				1
	Maggie E. Kenney	II	2	1 Walpole	3				1
	Alice Martin	II	1	2 Walpole	3				1
	Clarence D. Bouck	I	1	15 Walpole	3				1
Haliburton, etc	A. C. Bernath	I	8	Huntsville Town	26	1			
	R. G. Irvine	I	5	Burk's Falls Village	16	1			
	H. I. Case	I	2	4 N. Himsworth	5			1	
	E. T. Atkinson	III	2	2 Machar	8			1	
	R. B. Stevenson	II	3	8 S. Himsworth	3				1
	John Maxwell	II	2	Sundridge, Village	3				1
	W. I. Stephenson	I	3	1 Anson	3				1
	Maggie McLeod	III	1	8 Chaffey	3				1
Halton	Wm. F. Inman	I	7	*Milton, Town	46	1			
	Hannah J. Starr	I	6	†Acton, Village	16	1			

*Two teachers doing Continuation Class work only. †Organized January, 1902.

APPENDIX B.—*Continued.*

Inspectorate.	Name of Principal and Degree	Professional Certificate.	No. of Teachers.	Name of School.	No. of Pupils.	Class of School.			
						A	B	C	D
Halton—*Con.*	Richard J. Hill	I	4	Burlington, Village	13			1	
	John H. Bradley	I	1	4 Nelson	7			1	
Hastings, S.	Bertha Davidson	III	2	1 Tyendinaga	5			1	
	Robinson Morton	II	2	1 Hungerford	5			1	
	J. E. Chambers	II	1	3 Hungerford	5			1	
	Louise Rush	III	1	7 Sidney	5			1	
	John Bell	II	4	Tweed, Village	5			1	
	M. W. Mott	II	2	12 and 14 Thurlow	5			1	
	O. S. Hicks	II	2	2 Sidney	3				1
	Bertha Watson	II	1	10 Sidney	3				1
	W. A. Black	II	2	11 Sidney	3				1
	Lester Ross	II	2	13 Sidney	3				1
	Florence Snider	III	1	4 Thurlow	3				1
	Bessie Faulkner	III	1	7 Thurlow	3				1
	Wm. H. Nobes	II	2	17 Thurlow	3				1
	E. O. Platt	I	1	18 Thurlow	3				1
	Jenele Baker	III	1	7 Tyendinaga	3				1
	Annie Callaghan	III	1	17 Tyendinaga	3				1
Huron, E	A. H. Musgrove	II	9	Wingham, Town	63	1			
	I. H. Cameron	I	5	Brussels, Village	60	1			
	J. J. Bailey	I	3	Blyth, Village	13			1	
	John Hartley	II	2	Wroxeter, Village	13			1	
	Chas. E. Leppard	II	1	U. 4 Grey	5			1	
	Robt. Douglas	II	2	7 Howick	10			1	
	Alex. MacEwan	II	2	U. 4 Turnberry	9			1	
	S. Mack Eastman	III	1	3 Grey	4				1
	Lizzie Calder	II	2	7 Grey	4				1
	Geo. Dobson	II	2	11 Grey	4				1
	Wm. Watters	II	2	17 Howick	6				1
	Mary Aylesworth	III	1	18 Howick	4				1
	A. A. Dobson	III	1	5 Howick	6				1
	Fred Fowler	II	1	1 Hullett	3				1
	Jessie Wiseman	III	2	8 Hullett	3				1
	H. Miller	III	1	10 Morris	5				1
	A. Scott	II	1	3 Tuckersmith	7				1
	Robt. J. Beatty	II	1	5 Tuckersmith	4				1
	Thos. G. Shillinglaw	II	1	9 Tuckersmith	3				1
	Douglas Fraser	II	1	9 Turnberry	10				1
Huron, W.	H. N. Anderson	I	8	*Exeter, Village	46	1			
	Wm. McKay	II	3	Hensall, Village	16		1		
	Frederick Ross	II	1	4 Ashfield	6			1	
	Thos. G. Allan	II	2	8 Ashfield	11			1	
	W. L. Hackett	III	1	10 Ashfield	9			1	
	Isaiah Kilpatrick	III	1	16 Ashfield	7			1	
	Albert E. Aikenhead	III	2	10 Stanley	11			1	
	Geo. Howard	II	1	9 Stanley	7			1	
	Claude Bluett	II	3	5 Stephen	5			1	
	Chas. A. Tebbutt	II	1	4 W. Wawanosh	5			1	
	W. B. Hawkins	II	1	9 Ashfield	3				1
	D. W. Evans	II	1	12 Ashfield	5				1
	Geo. S. Woods	II	1	6 Colborne	3				1
	Eva Cooper	III	1	9 Colborne	5				1
	Lizzie M. Trudgeon	II	1	1 Goderich	4				1
	Sara J. Bell	I	1	2 Goderich	3				1
	Geo. Baird, Sr	I	1	1 Stanley	3				1
	Wm. H. Johnston	II	1	14 Stanley	5				1
	Jno. A. McNaughton	II	2	1 Stephen	4				1
	Annie M. Clark	II	1	3 W. Wawanosh	4				1
	Wm. N. Courtice	III	2	1 W. Wawanosh	6				1
	Lizzie Cunningham	II	1	8 E. Wawanosh	6				1
	H. I. Morrish	II	1	6 E. Wawanosh	3				1
Kent, E.	J. A. Bannister, B.A.	I	8	Blenheim, Town	30	1			
	Henry Kelly, B.A.	II	4	Bothwell, Town	28	1			
	J. G. Cameron	II	4	Thamesville, Village	30	1			
	J. D. Campbell	I	4	6 Orford	27	1			
	Margt. Scurrah	II	1	8 Camden	5			1	
	Lizzie Noack	II	2	2½ Harwich	8			1	
	Mary McCully	III	2	4 Harwich	5			1	
	Jas. C. Black	II	1	6 Harwich	5			1	

* Two teachers doing Continuation Class work only.

APPENDIX B.—*Continued.*

Inspectorate.	Name of Principal and Degree.	Professional Certificate	No. of Teachers.	Name of School.	No of Pupils.	Class of School.			
						A	B	C	D
Kent, E.—*Con*	Stella Rowe	II	1	7 Harwich	5	....	....	1	....
	R. J. Newkirk	II	1	9 Harwich	10	....	....	1	....
	J. E. Caldwell	II	2	3 & 4 Orford	6	....	....	1	....
	Flora Gesner	II	1	5 Orford	5	....	....	1	....
	Augusta Lawrence	II	1	10 Camden	3	....	....	....	1
	Chas. McKenzie	II	1	3 Harwich	3	....	....	....	1
	Alex. Clark	III	1	8 Harwich	4	....	....	....	1
	Jas. A. McDonald.	III	1	11 Harwich	3	....	....	....	1
	Jas. E. Wilkinson	III	1	13½ Harwich	4	....	....	....	1
	Mamie Campbell	III	1	1 Howard	3	....	....	....	1
	W. J. Robinson	II	1	2 Howard	3	....	....	....	1
	Dougald Graham	III	1	11 Howard	3	....	....		1
	Eliza Gesner	II	1	12 Howard	4	....	....	....	1
	May C. Colles	II	1	13 Howard	4	....	....	....	1
	Mary McArthur	III	1	16 Howard	3	....	....	....	1
	Louisa Tuck	III	1	3 Zone	4	....	....	....	1
	Pena M. Thatcher	II	1	5 Zone	4	....	....	....	1
Kent, W.	G. A. Miller	I	8	Dresden, Town	35	1	....	....	....
	E. E. Dadson	I	10	*Wallaceburg, Town	75	1	..	....	....
	Jessie Ferguson	II	2	9 Chatham	14	....	1	....	....
	W. C. Dainty	II	3	U. 4 Romney	18	..	1	....	....
	F. W. Tobey	III	1	3 Chatham	6	....	....	1	....
	Gordon Stewart	III	1	11 Dover	9	....	....	1	....
	Lydia Broadbent	III	1	7 Raleigh	7	....	....	1	....
	Cora C. Doyle	III	1	U 3 Raleigh	6	....	....	1	....
	Jas. A. Davidson	II	2	U. 5 Raleigh	8	....	....	1	....
	S Candace Irwin	II	2	5 Tilbury, E.	8	....	....	1	....
	I. S McAllum	II	3	Tilbury, Village	16	....	....	1	....
	Harriet French	II	1	6 S. Chatham	4	....	....	....	1
	Dora McKerrall	III	1	8 Chatham	3	....	....	....	1
	Nettie McKnight	II	1	U. 1 Chatham	3	....	..	....	1
	T. N. Leigh	II	1	6 Dover	4	....	....	....	1
	H. M. Fleming	III	1	5 Raleigh	7	....	....	....	1
	Ethel Waterman	II	1	9 Raleigh	4	....	....	....	1
	Elizabeth Patterson	II	1	13 Raleigh	7	....	....	....	1
	Margaret McIsaac	II	1	U. 4 Raleigh	5	....	....	....	1
	John Rogers	II	1	U. 6 Raleigh	5	....	....	....	1
	C. Ross McColl	III	1	2 E. Tilbury, E	3	....	....	....	1
	Alice Estabrook	III	1	2 W. Tilbury, E.	3	....	....	....	1
	Lizzie Stewart	II	1	3 M. Tilbury, E.	3	....	....	....	1
	A. A. McLean	III	1	3 S. Tilbury, E	5	....	....	....	1
	Cassie M. Hill	II	1	4 Tilbury, E	4	....	....	....	1
Lambton, E., No. 2.	D. Hicks, B.A	I	6	Oil Springs, Village	26	1	....	....	....
	Arthur Walker	I	4	Alvinston, Village	26	1	....	....	....
	Jas. J. Wilson	II	2	17 Enniskillen	13	....	1	....	....
	Arthur Prior	I	1	15 Warwick	3	....	....	....	1
	Chas. H. Barnes	I	2	Arkona, Village	4	....	....	....	1
	Maggie McKinlay	III	1	9 Brooke	3	....	....	....	1
	Jarvis Hewdry	II	1	3 Dawn	4	....	....	....	1
	Harvey Cutler	II	1	13 Dawn	4	....	....	....	1
	Edna Stewart	II	1	15 Enniskillen	3	....	....	....	1
Lambton, W., No. 1.	Neil McLean	II	3	Wyoming, Village	6	....	....	1	....
	Ada K. Lundey	II	2	8 Sombra	4	....	....	....	1
	Maud Brightwell	II	2	5 Moore	4	....	....	....	1
	Christena Gray	II	1	15 Moore	3	....	....	....	1
	Thos. Jarrott	II	2	18 Moore	3	....	....	....	1
	Chas. Johnson	II	1	3 Plympton	3	....	....	....	1
	Mamie D. Campbell	II	1	5 Plympton	3	....	....	....	1
	Maggie Logan	III	1	12 Plympton	3	....	....	....	1
Lanark	R. Beatty	II	5	Lanark, Village	36	1	....	....	....
	Mima Ellis	II	3	4 Pakenham	24	....	1	....	....
	R. W. Motherwell	III	1	1 Burgess, N	6	....	....	1	....
	J. A. McDonald	II	2	11 Drummond	5	....	....	1	....
	Mrs. E. Foley	II	2	12 Bathurst	3	....	....	....	1
	Ida Paul	II	2	11 Ramsay	3	....	....	....	1
	M. E. Sparrow	II	2	3 Bathurst	3	....	....	....	1
Leeds, No. 1	W. D. Hannah	I	3	Newboro' Village	6	....	....	1	....
	J. Somerville	II	2	4 Leeds, Rear	6	....	....	1	....
	B. Taggart	III	3	4 N. Crosby	4	....	....	....	1

* Two teachers doing Continuation Class work only.

APPENDIX B.—*Continued.*

Inspectorate.	Name of Principal and Degree.	Professional Certificate.	No. of Teachers.	Name of School.	No. of Pupils.	Class of School.			
						A	B	C	D
Leeds No. 1.—*Con.*	M. Foster	II	2	5 S Crosby	4	....	....	....	1
	J. Acheson	II	2	11 Bastard	4	....	....	....	1
Leeds, No. 2	Libbie E. Thompson	II	2	4 Yonge & Escott, Front.	9	....	....	1	....
	Malcolm Lehigh	III	2	11 Kitley	6	....	....	....	1
Leeds & Grenville	Thos. N. Lewis, B.A	I	5	Merrickville Village	33	1	....	....	....
	Geo. Conley	II	6	Cardinal Village	7	....	....	1	....
	Jas. E. Blanchard	II	2	17 Augusta	6	....	....	1	....
	J. E Burchill	II	2	15 Edwardsburgh	12	....	....	1	....
	Wm. J. McLachlan	II	2	1 and 5 Oxford	13	....	....	1	....
	Wm. T. Ferguson	III	2	8 Oxford	5	....	....	....	1
Lennox & Addington	J. H. Davidson, B.A. B. Paed	I	3	Bath Village	28	1	....	....	....
	Mary Gibson	III	1	4 Amherst Island	4	....	....	....	1
	Agatha Stevenson	III	1	1 Amherst Island	5	....	....	....	1
	Maud Glover	III	1	8 Ernesttown	5	....	....	....	1
	W. H. Tuckett	III	1	12 Ernesttown	4	....	....	....	1
	Fred. Adams	II	3	13 Ernesttown	9	....	.	....	1
[illegible]	A. A. McQuarrie	II	1	19 Ernesttown	4	....	....	....	1
Lincoln	F. J. Newhouse	II	1	1 Louth	3	....	....	....	1
[illegible]	E. W. Farr	II	1	3 Gainsboro'	3	....	....	....	1
Middlesex, E	Ernest Fuller	III	1	1 London	5	....	....	1	....
	Mary Sharp	II	1	7 London	8	....	....	1	....
	Garfield Smith	III	2	23 London	5	....	....	1	....
	Wm. Mc.Kerracher	II	2	17 London	6	....	....	1	....
	Floy Glenn	II	1	14 Westminister	4	....	....	....	1
	Albert Smith	II	1	17 Dorchester	3	....	....	....	1
	Chas. F Price	II	1	4 London	4	....	....	....	1
	Geo. Stewart	II	1	10 London	3	....	....	....	1
	Alfred Marks	III	1	13 London	3	....	....	....	1
	Duncan McMartin	III	1	2 Nissouri	3	....	....	....	1
	John D. Milne	II	1	6 and 10 Westminister	3	....	....	....	1
	Susanna McLellan	II	1	18 and 21 Westminister	3	....	....	....	1
	Fred. Langford	II	2	5 Westminister	3	....	....	....	1
Middlesex, W	W. G. Robinson	II	2	U. 16 Caradoc & Exfrid	10	....	1	....	....
	Ben. Parker	II	1	U.1 & 2 Adel. & W.W'ms.	5	....	....	1	....
	Melvin Payne	II	1	10 Lobo	8	....	....	1	....
	C. J. Bradley	II	2	15 Caradoc	3	....	....	....	1
	Sara Brodie	II	1	1 Ekfrid	3	....	....	....	1
	Byron McLeod	II	1	3 Ekfrid	3	....	....	....	1
	Charles George	II	1	7 Lobo	4	....	....	....	1
	Frank Stidwell	II	1	17 Mosa	3	....	....	....	1
	Jennie McPherson	II	1	13 W. Williams	3	....	....	....	1
	Donald S. McPherson	II	1	U.16 W.W'ms.&McG'lvry	3	....	....	....	1
	Geo. Glendinning	III	1	1 E. Williams	3	....	....	....	1
Norfolk	J. A. Irwin	I	4	Delhi Village	13	....	....	1	....
	H. J. Alexander	II	2	6 Charlotteville	7	....	....	1	....
	A. Hyde	III	1	23 Townsend	7	....	....	1	....
	N. C. Mansell	II	2	2 Middleton	6	....	....	1	....
	E. B. Hagerman	II	2	18 Charlotteville	6	....	....	....	1
	M. C. Scott	III	1	12 Townsend	4	....	....	....	1
	L. Bouslaugh	III	1	13 Townsend	4	....	....	....	1
	M. A. Ionson	I	1	24 Townsend	6	....	....	....	1
	F. C. McCall	III	2	7 S. Walsingham	5	....	....	....	1
	M. Reid	II	1	15 N. Walsingham	5	....	....	....	1
	R. A. Catherwood	II	2	10 Windham	5	....	....	....	1
	H. Henderson	I	1	14 Windham	5	....	....	....	1
Northumberland	W. J. Wright, B.A.	I	4	2 Percy	29	1	.	....	....
	Geo. A. Dawe	II	2	2 Alnwick	10	....	....	1	....
	W. T. Halligan	II	2	Hastings Village	9	....	....	1	....
	Edith Robertson	II	1	5 Percy	6	....	....	1	....
	J. H. Minaker	II	1	8 Percy	6	....	....	1	....
	Annie Robertson	III	1	10 Percy	3	....	....	....	1
Ontario, N	R. J. Johnston	II	4	Cannington Village	17	....	1	....	....
	J. Givens	II	3	Beaverton Village	16	....	1	....	....
	Edward Blanchard	II	1	8 Scott	8	....	....	1	....
	Annie Ferguson	III	1	U. 2 Brock	6	....	....	1	....
	Ernest Middleton	II	1	10 Brock	6	....	....	1	....
	J. M. Kelly	II	1	3 Mara	6	....	....	1	....
	Mary Bradley	III	1	2 Rama	8	....	....	1	....
	Wm. Fallowdowne	II	3	13 Brock	9	....	....	1	....

APPENDIX B.—*Continued.*

Inspectorate.	Name of Principal and Degree.	Professional Certificate.	No of Teachers.	Name of School.	No. of Pupils.	Class of School.			
						A	B	C	D
Ontario, N.—*Con.*	Mary McLean	III	1	3 Uxbridge	4	....	....	....	1
	J. Johnston	III	2	7 Uxbridge	4	....	....	....	1
	Jas. Quigley	II	1	2 Scott	4	....	....	....	1
	Eugene Richardson	II	2	5 Scott	5	....	....	....	1
	Herbert Gillson	II	1	2 Brock	3	....	....	....	1
	Henry Hart	II	1	6 Brock	6	....	....	....	1
	W. A. Cameron	II	1	2 Thorah	3	....	....	....	1
	Bell Grant	II	1	15 Thorah	4	....	....	....	1
	Martha Cameron	II	1	2 Mara	4	....	....	....	1
	J. Malone	I	1	6 Mara	4	....	....	....	1
Ontario, S	W. G. Ward	II	1	10 Pickering	6	....	....	1	....
	W. W. Noble	II	2	8 Pickering	4	....	....	....	1
	R. S. Vickery	III	2	6 E. Whitby	3	....	....	....	1
Oxford	Geo. Pentland	I	6	Norwich Village	20	1	....	....	....
	Jas. W. Fraser, B.A.	II	3	Embro, Village.	19	....	1	....	....
	D. A. Gilchrist	I	3	U.21 and 7 Blen'm & Bur.	17	....	1	....	....
	G. E. Trueman	III	3	24 Blenheim	31	....	1	....	....
	C. A. Garthwaite	II	3	6 S. Norwich	15	....	1	....	....
	C. Cameron	I	4	U. 13 & 3 E. Zorra & E Easthope	14	....	1	....	....
	P. H. Hendershot	II	2	U. 3 N. Norwich	8	....	....	1	....
	M. B. Hugill	II	2	5 Dereham	7	....	....	1	....
	T. Hobbs	I	3	U. 5 & 1 E. Nissouri & N. Oxford	12	....	....	1	....
	A. A. Merritt	I	3	11 Blenheim	12	....	....	....	1
Peel	E. L. Wethey, B.A.	I	4	Bolton Village	16	1	....	....	....
	Adam C. Wilson	II	2	15 Caledon	5	....	....	1	....
	Minnie Bateman	II	2	U. 21 Toronto	3	....	....	....	1
	W. J. Golden	II	2	19 Toronto	4	....	....	....	1
	Nellie Higginson	II	2	8 Caledon	4	....	....	....	1
Perth	Jas. H. Smith	II	3	Milverton Village	14	....	1	....	....
	Wesley Mark	II	1	9 Blanchard	6	....	....	1	....
	Wm. A. Adams	II	1	6 Downie	6	....	....	1	....
	Robt. C. Good,	II	1	7 Downie	7	....	....	1	....
	D. Grant Anderson	II	2	10 Elma	5	....	....	1	....
	H. Hall Cowie	II	2	U. 4 Fullarton	8	....	....	1	....
	Andrew Haynes	III	1	7 Blanchard	3	....	....	....	1
	Lily Harding	III	1	10 Blanchard	3	....	....	....	1
	Peter McNaughton	II	1	U. 11 Blanchard	5	....	....	....	1
	Jessie Bell	I	1	5 Downie	5	....	....	....	1
	Joan Hamilton	II	1	2 N. Easthope	3	....	....	....	1
	Phoebe Code	II	1	1 Elma	7	....	....	....	1
	Wm. Robertson	III	1	5 Elma	3	....	....	....	1
	Samuel Sample	II	2	3 Fullarton	6	....	....	....	1
	C. W. Hurlburt	III	1	6 Logan	3	....	....	....	1
	Thos. Hutchison	II	1	4 Mornington	3	....	....	....	1
Peterborough	Wm. A. Evans	I	5	Lakefield Village	21	....	1	....	....
	D. L. Somerville	II	4	Havelock Village	13	....	....	1	....
	Thos. J. Wallace	II	2	4 Otonabee	14	....	....	1	....
Prescott & Russell	Chas. S. Edwards	III	2	5 Cumberland	6	....	....	1	....
	Lodema Story	II	1	8 E Hawkesbury	9	....	....	1	....
	Agnes A. Bradley	III	1	4 Caledonia	5	....	....	....	1
	Edith Fraser	II	1	4 S. Plantagenet	3	....	....	....	1
	G. P. Dunning	III	2	3 Cumberland	8	....	....	....	1
	Mildred Turnbull	III	1	1 Russell	4	....	....	....	1
	S. A. Hitsman	I	3	2 Russell	5	....	....	....	1
	C. M. Rowe	II	2	Rockland Village	4	....	....	....	1
Prince Edward	Walter J. Osborne	I	2	7 Hallowell	10	....	....	1	....
	Frank B. Clarke	I	2	17 Hillier	10	....	....	1	....
	Kenneth Beech	III	2	Wellington Village	6	....	....	1	....
Renfrew	Gavin A. Lucas, B.A.	I	4	Eganville Village	22	1	....	....	....
	O. G. Copeland	II	2	Cobden Village	7	....	....	1	....
	Maud Greaves	II	2	6 Ross	7	....	....	1	....
	Geo. R. Wood	II	2	7 Westmeath	6	....	....	1	....
	Delia Benn	II	1	3 Admaston	3	....	....	....	1
	Lizzie Kehoe	II	1	4 Admaston	3	....	....	....	1
	Carrie Jack	III	1	7 Admaston	3	....	....	....	1
	Mary H. Taylor	III	1	10 Admaston	4	....	....	....	1
	John Johnston, B.A.	III	2	5 Bagot	6	....	....	....	1
	N. H. McNaughton	III	2	1 McNab	5	....	....	....	1

APPENDIX B.—*Continued.*

Inspectorate.	Name of Principal and Degree.	Professional Certificate.	No. of Teachers.		Name of School.	No. of Pupils.	Class of School.			
							A	B	C	D
Simcoe, E. and W. Muskoka	John Trask	III	3	7	Medonte	6	....	....	1	....
	Miss V. Williams	II	2	2	Stephenson	6	....	....	1	....
	Chas. Bowles	III	1	1	Humphrey	3	....	....	....	1
	Chas Thomson	II	1	3	Wood	3	....	....	....	1
	Angus Black	III	1	5	Oro	3	....	....	....	1
	Lewis Baker	III	2	4	Medonte	4	....	....	....	1
	R. G. Nesbitt	II	4	12	Tay	4	....	....	....	1
	J. Hutson	II	4	13	Tay	4	....	....	....	1
Simcoe, N.	A. McKee	I	11		Midland, Town	27	1	....	....	....
	Thos. Gowan	I	4		Creemore, Village	20	1	....	....	....
	Geo. A. Clarke	I	4	5	Flos	13	....	1	....	....
	M. Johnstone	II	1	3	Sunnidale	4	....	....	....	1
	T. W. Walker	II	1	4	Sunnidale	4	....	....	....	1
	I. J. McInerney	II	6		Penetanguishene, T'n	9	....	....	....	1
	Jas. A. Key	II	2	3	Vespra	5	....	....	....	1
	Kate C. Morrison	II	2	4	Oro	4	....	....	....	1
	D. J. Ritchie	II	1	14	Tiny	4	....	....	....	1
Simcoe, S.W	J. A. Speers	I	6		*Alliston, Town	48	1	....	....	....
	W. L. Kidd	I	6		*Stayner, Town	35	1	....	....	....
	Thos. Elliott, B.A	I	4		*Tottenham, Village	43	1	....	....	....
	John E. Anderson	I	4	5	Essa	28	1	....	....	....
	J. A. MacPherson	II	4		Beeton, Village	25	1	....	....	....
	D. J. Ferguson	I	2	10	Essa	11	....	1	....	....
	Jas. E. Holt	II	2	10	W. Gwillimbury	12	....	1	....	....
	Jos. Hubberd	III	2	3	Nottawasaga	11	....	1	....	....
	Jas. Spence	III	2	5	Nottawasaga	11	....	1	....	....
	Geo. Sutherland	II	2	14	Nottawasaga	13	....	1	....	....
	Genevieve McGeoy	III	1	4	Adjala	6	....	....	1	....
	Geo. L Thompson	I	1	6	Essa	8	....	....	1	....
	J. E. Thompson	III	1	7	Essa	6	....	....	1	....
	John Cowles	III	1	4	Innisfil	5	....	....	1	....
	Wm. Kirkpatrick	III	1	7	Innisfil	6	....	....	1	....
	John Corbett	II	1	9	Innisfil	5	....	....	1	....
	Andrew McLean	III	2	9	Nottawasaga	7	....	....	1	....
	Jennie Fife	III	1	5	Adjala	4	....	....	....	1
	Archy Creery	II	1	6	Adjala	4	....	....	....	1
	Willard Fife	III	1	1	Essa	4	....	....	....	1
	Roy Hamer	III	1	2	Essa	3	....	....	....	1
	Gertrude Steele	III	1	3	Essa	3	....	....	....	1
	Annie Rothwell	III	1	16	W. Gwillimbury	3	....	....	....	1
	Chas. Deering	II	2	10	Innisfil	4	....	....	....	1
	Alfred G. Green	II	1	19	Tecumseth	4	....	....	....	1
	Phoebe Evans	II	1	2	Tossorontio	3	....	....	....	1
	Thos. Irwin	II	1	4	Tossorontio	4	....	....	....	1
	Geo. Wilson	II	1	6	Tossorontio	4	....	....	....	1
	John N. McGuire	II	1	8	Tossorontio	4	....	....	....	1
	Adeline Ruston	III	1	2	Tecumseth	4	....	....	....	1
Stormont	John G. Gordon	I	3	14	Roxborough	10	1	....	....	....
	James Froats	I	3	3	Finch	15	1	....	....	....
	Willis Sheets	II	2	3	Osnabruck	13	....	1	....	....
	R. A. Baker	III	3	4	Osnabruck	13	....	1	....	....
	Elizabeth Cleary	II	2	1	Osnabruck	5	....	....	....	1
	Ed. J. Cleary	III	2	5	Cornwall	5	....	....	....	1
Victoria, E.	Chas. Ramsay	I	4		Bobcaygeon, Village	10	....	1	....	....
	Rupert Wagar	II	1	3	Verulam and Fenelon	3	....	....	....	1
	Marion Nugent	III	1	7	Ops	3	....	....	....	1
Victoria, W., etc	W. C. Shier, B.A	I	10		*Bracebridge, Town	40	1	....	....	....
	Ed. Mosgrove	II	2	8	Eldon	6	....	....	1	....
	Byron H. Maybee	II	6		Fenelon Falls, Village	8	....	....	1	....
	J. Murray Wilson	II	2		Woodville, Village	11	....	....	1	....
	Thos Birchard	II	2	1	Bexley	4	....	....	....	1
	Christopher Argue	II	1	21	Mariposa	4	....	....	....	1
Waterloo	R. N. Shortill	II	4		Ayr, Village	17	....	1	....	....
	Jas. Corrigill	I	6		Elmira, Village	10	....	....	1	....
	J. H. Burkholder	II	1	20	N. Dumfries	5	....	....	1	....
	J. D. Ramsay	II	8		Hespeler, Town	8	....	....	....	1
	David Harper	II	2	1	Wilmot	8	....	....	....	1
	Geo. L. Lackner	II	2	5	Woolwich	3	....	....	....	1

* Two teachers doing Continuation Class work only.

APPENDIX B.—*Continued.*

Inspectorate.	Name of Principal and Degree.	Professional Certificate.	No. of Teachers	Name of School.	No. of Pupils.	Class of School. A	B	C	D
Welland	Chas. E. Hansel	II	4	Bridgeburg, Village	18		1		
	D. W. McKay	I	4	Pt. Colborne, Village	29		1		
	W. H. Metcalf	II	3	11 Bertie	16		1		
	W. B. Buckner	III	2	5 Humberstone	6			1	
	A. C. Ricker	III	2	4 Thorold	5			1	
	Mabel Henderson	III	1	6 Wainfleet	5			1	
	W. McMaster	II	1	9 Pelham	5			1	
	N. F. Box	II	2	4 Wainfleet	3				1
	Clara M. Augustine	II	1	U 6 Pelham	3				1
Wellington, N.	G. A. Campbell	II	4	Drayton, Village	26	1			
	Douglas Forsyth	II	8	Palmerston, Town	28	1			
	Mary Douglas	II	2	12 Maryboro'	11		1		
	John A. Gray	II	3	Clifford, Village	6		1		
	Margaret Dellair	II	1	4 Arthur	3				1
	Clarence Long	II	2	2 Peel	4				1
Wellington, S	W. M. Mitchell	I	4	Erin, Village	16	1			
	John M. Scott	II	2	9 Eramosa	9			1	
	W. H. Rowan	II	2	6 Erin	5			1	
	A. F. McKenzie	II	1	4½ Guelph	6			1	
	Jas. Armstrong	II	1	9 Puslinch	5			1	
	W. L. Elvidge	II	1	6 W. Garafraxa	7			1	
	C. C. McIntosh	II	2	7 W. Garafraxa	7			1	
	Janet Mitchell	II	1	6 Eramosa	3				1
	Jos. T. Thompson	III	1	12 Erin	3				1
	Alex. H. McIntosh	III	1	6 Puslinch	4				1
Wentworth	Chas. H. Stuart	II	3	5 Ancaster	20		1		
	Frank McCallum	I	2	6 Ancaster	14			1	
	Lillie Raycroft	III	2	3 Barton	5			1	
	Jas. E. Stewart	II	2	7 W. Flamboro	6			1	
	Harry Henderson	III	2	9 W. Flamboro	10			1	
	Chas. E. Kelly	I	3	3 Saltfleet	10			1	
	Jas. Roberts	III	2	7 Beverly	5				1
	Maggie N. Lee	II	2	3 Binbrook	3				1
	John A. Monkman	II	2	10 W. Flamboro'	5				1
York, N	J. W. Rymal, B.A	I	3	13 E. Gwillimbury	20	1			
	T. A. Colquhoun	I	3	14 King	14	1			
York, S	John W. Johnston	II	6	East Toronto, Village	6			1	
	J. W. English	II	3	1 Etobicoke	10			1	
	P. G. Might	I	4	North Toronto, Town	9			1	
	Jas. Hand	II	5	Stouffville, Village	4				1
	W. H. Harlton	I	4	Woodbridge, Village	19	1			
Algoma, etc	John B. Stewart	II	3	1 Chapleau	5			1	
Manitoulin, etc	R. O. White	I	4	Gore Bay, Town	20	1			
	F. H. Hurlburt	II	2	2 Assignack	5			1	
	D. M. Christie	I	4	1 Plummer Additional	12			1	
	W. Argue	II	4	Thessalon, Town	6			1	
	R. D. Fleming	II	4	Little Current, Town	5				1
W. Parry Sound and N. Nipissing	A. M. Currie	I	11	*Parry Sound, Town	54	1			
	Wm. P. Hedley	I	5	Sudbury, Town	8			1	
	Wm. M. Bradley	I	5	Copper Cliff, Town	9			1	
	B. Cryderman	III	2	1 Chapman	6				1
R. C. S. Schools, Central Ontario.	R. L. Gaughan	II	2	3 Mara	7			1	
	Thos. J. Ryan	II	1	10 Adjala	5				1
	Mary Tracy	II	2	Hastings, Village	3				1
R. C. S. Schools, E. Ontario	Sr. St. Ernestina		4	Eganville, Village	27	1			
	Sr. St. Andrew		3	4 N. Crosby	20		1		
	Wm. Gallagher	II	5	Mattawa, Town	10			1	
R. C. S. Schools, W. Ontario	Sister Ethelbert		5	Amherstburg, Town	19	1			
	Ida M. Lacy	II	1	5 Raleigh	3				1
	Margaret Lewis	III	1	6 Raleigh	3				1
Totals					4933	59	49	149	283

* Two teachers doing Continuation Class work only.

APPENDIX C.—*TEACHERS' INSTITUTES.*

Financial Statement, 1901.

Name of Institute.	Number of Institutes.	Number of Members.	Receipts.					Expenditure.				
			Government Grant.	Municipal Grant.	Members' Fees.	Balances and other sources.	Total receipts.	Printing, postage, etc.	Libraries, educational journals, etc.	Miscellaneous.	Total expenditure.	Balances.
			$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Algoma, East	1	50	25 00	.....	.....	32 54	57 54	3 88	6 17	25	10 30	47 24
Algoma, West (Thunder Bay)	1	30	25 00	.....	.....	9 78	34 78	2 49	19 65	.....	22 14	12 64
Brant	1	132	25 00	25 00	.....	176 25	226 25	9 25	32 00	49 40	90 65	135 60
Bruce, East	1	123	25 00	25 00	.....	21 99	71 99	5 82	21 75	44 42	71 99	.....
Bruce, West	1	25	25 00	25 00	6 25	167 44	223 69	7 20	29 00	105 94	142 14	81 55
Carleton	1	135	25 00	50 00	.....	38 36	113 36	12 32	.....	46 75	59 07	54 29
Dufferin	1	121	25 00	25 00	.....	2 40	52 40	7 50	15 37	.....	22 87	29 53
Dundas	1	113	25 00	25 00	21 50	74 44	145 94	48 00	.....	15 00	63 00	82 94
Durham	1	120	25 00	25 00	.....	100 12	150 12	8 60	20 00	54 55	83 15	66 97
Elgin	1	175	25 00	25 00	.....	201 10	251 10	.....	.....	136 30	136 30	114 80
Essex, North	1	60	25 00	50 00	.....	90 03	165 03	11 00	.....	69 50	80 50	84 53
Essex, South	1	125	25 00	50 00	.....	133 98	208 98	48 00	.....	56 35	104 35	104 63
Frontenac	1	150	25 00	25 00	.....	75 54	125 54	7 59	.....	66 46	74 05	51 49
Glengarry	1	95	25 00	25 00	.....	38 87	88 87	24 26	.....	36 20	60 46	28 41
Grenville (Leeds No. 3)	1	105	25 00	25 00	.....	64 61	114 61	7 03	60	28 42	36 05	78 56
Grey, East	1	27	25 00	25 00	6 75	30 93	87 68	2 50	.....	37 30	39 80	47 88
Grey, South	1	62	25 00	25 00	15 50	237 47	302 97	.....	61 37	79 82	141 19	161 78
Grey, West	1	94	25 00	25 00	13 00	39 45	102 45	6 75	8 31	22 00	37 06	65 39
Haldimand	1	116	25 00	25 00	.....	201 84	251 84	6 30	.....	24 20	30 50	221 34
Haliburton	1	59	25 00	25 00	2 25	2 40	54 65	14	10 10	5 00	15 24	39 41
Halton	1	90	25 00	25 00	.....	111 88	161 88	.....	37 20	34 50	71 70	90 18
Hastings, North	1	121	25 00	25 00	10 60	161 13	221 73	9 00	43 10	26 50	78 60	143 13
Hastings, South	1	130	25 00	25 00	.....	224 93	274 93	13 95	.....	53 00	66 95	207 98
Huron, West (S)	1	21	25 00	25 00	11 00	73 76	134 76	7 60	11 88	47 20	66 68	68 08
Huron, East (N)	1	125	25 00	25 00	.....	24 24	74 24	6 75	.....	62 50	69 25	4 99
Kent, East	1	80	25 00	25 00	.....	53 68	103 68	2 80	.....	48 38	51 18	52 50
Kent, West	1	134	25 00	25 00	25 75	57 84	133 59	5 85	.....	59 39	65 24	68 35
Lambton, East	1	114	25 00	25 00	12 85	47 89	110 74	35 01	.....	55 75	90 76	19 98
Lambton, West	1	120	25 00	25 00	.....	74 21	124 21	20 40	.....	14 25	34 65	89 56
Lanark	1	200	25 00	25 00	13 30	190 53	253 83	14 50	34 50	28 00	77 00	176 83
Leeds, East (2)	1	101	25 00	25 00	19 25	160 65	229 90	9 47	84 71	36 25	130 43	99 47
Leeds, West (1)	1	100	25 00	25 00	.....	96 88	146 88	9 00	81 47	14 15	104 62	42 26
Lennox and Addington	1	125	25 00	25 00	.....	60 76	110 76	5 15	.....	65 85	71 00	39 76
Lincoln	1	121	25 00	25 00	.....	201 12	251 12	8 62	.....	62 00	70 62	180 50
*Manitoulin	1	21	25 00	.....	.....	15 00	40 00	.....	.....	5 00	5 00	35 00
Middlesex, East	1	107	25 00	85 00	26 75	23 95	160 70	76 34	48 40	30 76	155 50	5 20

Middlesex, West	1	109	25 00	100 00	45 00	102 60	272 60	40 89	.....	125 00	165 89	106 71
Muskoka	1	67	25 00	.....	.....	114 10	139 10	5 50	.....	2 75	8 25	130 85
Nipissing	1	16	25 00	.....	13 00	19 53	57 53	50	16 25	15 20	31 95	25 58
Norfolk	1	140	25 00	50 00	.....	57 20	132 20	45 27	22 50	25 90	93 67	38 53
Northumberland	1	150	25 00	25 00	.....	181 21	231 21	6 75	.....	59 50	66 25	164 96
Ontario, North	1	83	25 00	25 00	18 00	47 06	115 06	4 02	.....	85 50	89 52	25 54
Ontario, South	1	83	25 00	25 00	.....	52 03	102 03	5 45	.....	18 24	23 69	78 34
Oxford	1	89	25 00	25 00	22 25	68 05	140 30	11 45	13 35	67 35	92 15	48 15
Parry Sound, East	1	28	25 00	.....	7 75	39 67	72 42	8 38	24 88	24 50	57 76	14 66
Parry Sound, West	1	40	25 00	.....	5 00	21 25	51 25	4 35	12 50	.....	16 85	34 40
Peel	1	95	25 00	25 00	.....	57 61	107 61	17 00	.....	44 00	61 00	46 61
Perth	1	145	25 00	25 00	72 00	43 19	165 19	19 00	.....	110 54	129 54	35 65
Peterborough	1	114	25 00	25 00	.....	18 65	68 65	8 87	14 37	23 80	47 04	21 61
Prescott and Russell (Fr. Eng.)	1	117	25 00	25 00	.....	45 46	95 46	3 50	.....	13 86	17 36	78 10
Prescott and Russell	1	130	25 00	25 00	.....	33 26	83 26	6 23	3 31	16 20	25 74	57 52
Prince Edward	1	99	25 00	25 00	.....	102 65	152 65	3 30	8 74	29 80	41 84	110 81
Rainy River	1	29	25 00	.....	9 00	26 75	60 75	7 35	24 00	.....	31 35	29 40
Renfrew	1	81	25 00	25 00	.....	38 40	88 40	2 08	.....	54 00	56 08	32 32
Simcoe, East and West Muskoka	1	61	25 00	.....	.....	80 93	105 93	8 15	24 10	36 26	68 51	37 42
Simcoe, North	1	131	25 00	.....	17 50	125 13	167 63	9 45	8 25	63 80	81 50	86 13
Simcoe, South-west	1	39	25 00	25 00	9 75	224 58	284 33	6 63	.....	25 70	32 33	252 00
Stormont	1	49	25 00	25 00	.....	48 12	98 12	13 10	3 75	38 03	54 88	43 24
Victoria, East	1	82	25 00	25 00	.....	223 04	273 04	31 05	179 60	35 00	245 65	27 39
Victoria, West	1	74	25 00	25 00	.....	101 26	151 26	10 50	74 75	47 34	132 59	18 67
Waterloo	1	114	25 00	25 00	57 00	47 80	154 80	22 44	.....	121 75	144 19	10 61
Welland	1	141	25 00	25 00	.....	61 57	111 57	11 00	.....	89 85	100 85	10 72
Wellington, North	1	116	25 00	25 00	5 50	69 92	125 42	12 85	.....	27 00	39 85	85 57
Wellington, South	1	84	25 00	25 00	.....	60 97	110 97	7 33	.....	51 50	58 83	52 14
Wentworth	1	107	25 00	25 00	.....	61 18	111 18	15 25	.....	22 10	37 35	73 83
York, North	1	48	25 00	25 00	12 00	68 57	130 57	10 59	56 00	19 75	86 34	44 23
York, South	1	82	25 00	25 00	20 50	117 95	188 45	40 83	21 89	21 00	83 72	104 73
†Ontario Educational Association	1	662	600 00	.....	331 00	710 60	1,641 60	804 80	.....	349 35	1,154 15	487 45
Cities:—Guelph	1	35	25 00	25 00	.....	11 18	61 18	19	25 27	15 24	40 70	20 48
Hamilton	1	177	25 00	25 00	44 25	115 01	209 26	26 55	.....	54 25	80 80	128 46
†Kingston	1	60	25 00	25 00	8 50	73 86	132 36	3 11	28 70	54 90	86 71	45 65
London	1	160	25 00	25 00	58 25	57 48	165 73	7 00	30 30	113 50	150 80	14 93
Ottawa	1	156	25 00	25 00	.....	22 38	71 38	3 30	.....	39 14	42 44	29 94
Ottawa (Bilingual)	1	.....	25 00	.....	.....	.....	25 00	.....	.....	25 00	25 00	.....
St. Catharines	1	25	25 00	50 00	.....	12 34	87 34	.....	27 45	20 10	47 55	39 79
St. Thomas	1	41	25 00	25 00	10 50	25 15	85 65	6 75	5 00	39 90	51 65	34 00
Toronto	1	636	25 00	25 00	159 00	1,656 01	1,865 01	186 63	213 88	832 80	1,232 81	632 20
Windsor and Town of Walkerville	1	59	25 00	10 00	.....	6 60	41 60	.....	.....	.....	.....	41 60
Totals, 1901	78	8372	2525 00	1895 00	1,110 50	8,368 29	13,898 79	1,880 46	1,404 42	4,380 24	7,665 12	6,233 67
" 1900	76	8081	2475 00	1767 50	966 95	7,222 17	12,431 62	1,837 33	1,177 12	3,470 65	6,485 10	5,946 52
Increases	2	291	50 00	127 50	143 55	1,146 12	1,467 17	43 13	227 30	909 59	1,180 02	287 15
Decreases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* Statistics of preceding year ; no report received. † Statement for 1901-1902.

APPENDIX D.—*INSPECTION OF SCHOOLS.*

I.—List of Inspectors, 1902.

Public School Inspectors.	Jurisdiction.	Post Office.	Salary (travelling expenses included in some cases) for 1901.
			$ c.
*T. W. Standing, B.A..	Brant; Town of Paris	Brantford	990 00
W. S. Clendenning	Bruce, East; Towns of Walkerton, Wiarton; Villages of Chesley, Tara	Walkerton ...	1,385 00
*W. I. Chisholm, M.A..	Bruce, West; Town of Kincardine; Villages of Lucknow, Paisley, Port Elgin, Southampton, Teeswater, Tiverton	Kincardine ..	1,386 25
Robert H. Cowley, B.A.	Carleton; Villages of Hintonburg, Ottawa East Richmond	Ottawa	1,641 25
Nathaniel Gordon	Dufferin; Town of Orangeville; Villages of Grand Valley, Shelburne	Orangeville...	1,100 00
Arthur Brown.....	Dundas; Villages of Chesterville, Iroquois, Morrisburg, Winchester	Morrisburg ..	1,050 00
W. E. Tilley, M.A., Ph.D	Durham and S. Monaghan Tp.; Towns of Bowmanville, Port Hope; Villages of Millbrook, Newcastle	Bowmanville .	1,560 00
Welburn Atkin	Elgin; Town of Aylmer; Villages of Dutton, Port Stanley, Springfield, Vienna	St. Thomas...	1,550 00
D. Chenay	Essex, North (No. 1); Town of Sandwich; Village	Windsor.	1 000 00
D. A. Maxwell, B. A., LL.B., Ph.D	of Belle River		
	Essex, South (No 2); City of Windsor; Towns of Amherstburg, Essex, Kingsville, Leamington, Walkerville	Windsor.	1.593 00
Wm. Spankie, M.D	Frontenac; Villages of Garden Island, Portsmouth	Kingston	1,522 50
Don'ld. McDiarmid, M.D	Glengarry; Villages of Alexandria, Lancaster, Maxville	Maxville.	850 00
Andrew Grier	Grey, East; Town of Thornbury	Thornbury...	950 00
*H. H. Burgess, B.A ...	Grey, West; Town of Owen Sound	Owen Sound..	1,252 50
N. W. Campbell..... ..	Grey, South; Towns of Durham, Meaford; Villages of Dundalk, Markdale	Durham	1,282 00
Clarke Moses	Haldimand; Town of Dunnville; Villages of Caledonia, Cayuga, Hagersville	Caledonia	1,210 00
Sylvanus Phillips, B.A..	Haliburton. North East Muskoka. South Nipissing. East Parry Sound; Town of Huntsville; Villages of Burk's Falls, Sundridge	Minden	1,557 00
J. S. Deacon	Halton; Towns of Milton, Oakville; Villages of Acton, Burlington, Georgetown	Milton	1,393 75
William Mackintosh....	Hastings, North; Villages of Madoc, Stirling	Madoc.	1,516 25
John Johnston	Hastings, South; City of Belleville; Towns of Deseronto, Trenton; Village of Tweed	Belleville	1,560 00
David Robb.....	Huron, East (N.); Towns of Clinton, Seaforth, Wingham; Villages of Blyth, Brussels, Wroxeter	Brussels.....	1,397 50
J. Elgin Tom	Huron, West (S.); Town of Goderich; Villages of Bayfield, Exeter, Henall	Goderich	1,481 25
Rev. W. H. G. Colles...	Kent, East; Towns of Blenheim, Bothwell, Ridgetown; Village of Thamesville	Chatham.	1,050 00
Robert Park.....	Kent, West; City of Chatham; Towns of Dresden, Wallaceburg; Village of Tilbury	Chatham.	1,545 00
C. A. Barnes, M.A	Lambton, East (No. 2); Town of Petrolea; Villages	London	1,253 50
D. D. Moshier, B.A., B. Paed	of Alvinston, Arkona, Oil Springs, Watford		
	Lambton, West (No. 1); Towns of Forest, Sarnia; Villages Point Edward, Thedford, Wyoming	Sarnia.	1,380 00
F. L. Michell, M.A	Lanark; Towns of Almonte, Carleton Place, Perth, Smith's Falls; Village of Lanark	Perth	1,850 00
Wm. Johnston, M. A., LL.B	Leeds and Grenville, No. 1; Town of Gananoque; Village of Newboro'	Athens.....	1,150 00
Robert Kinney, M.D...	Leeds and Grenville, No 2; Village of Athens	Brockville....	1,050 00
T. A. Craig	Leeds and Grenville, No. 3; Town of Prescott; Villages of Cardinal, Kemptville, Merrickville.	Kempville....	1,070 00
Frederick Burrows.	Lennox and Addington; Town of Napanee; Villages of Bath, Newburgh	Napanee.	1,380 00

* Appointed in 1902.

I.—List of Inspectors, 1902.—*Continued.*

Public School Inspectors.	Jurisdiction.	Post Office.	Salary (travelling expenses included in some cases) for 1901.
			$ c.
W. W. Ireland, B.A....	Lincoln; Town of Niagara; Villages of Beamsville, Grimsby, Merritton, Port Dalhousie.....	St. Catharines	1,285 00
P. J. Thompson, B.A...	Middlesex, East; Village of Lucan.....	London.....	1,300 00
H. D. Johnson.....	Middlesex, West; Towns of Parkhill, Strathroy; Villages of Ailsa Craig, Glencoe, Newbury,		
J. J. Wadsworth, M.A., M.B.....	Wardsville.....	Strathroy	1,200 00
	Norfolk; Town of Simcoe; Villages of Delhi, Port Dover, Port Rowan, Waterford	Simcoe	1,500 00
Albert Odell.....	Northumberland; Town of Cobourg; Villages of Brighton, Campbellford, Colborne, Hastings...	Cobourg.....	1,540 00
James McBrien.....	Ontario, North; Town of Uxbridge; Villages of		
John Waugh, B.A., D. Paed.....	Beaverton, Cannington, Port Perry.....	Prince Albert.	990 00
William Carlyle.....	Ontario, South; Towns of Oshawa, Whitby.....	Whitby.....	1,012 00
	Oxford; City of Woodstock; Towns of Ingersoll, Tilsonburg; Villages of Embro, Norwich.....	Woodstock....	1,540 00
Allan Embury.....	Peel; Town of Brampton, Villages of Bolton, Streetsville.....	Brampton....	1,190 00
William Irwin, B.A	Perth; Towns of Listowel, Mitchell, St. Mary's; Village of Milverton.....	Stratford	1,597 50
J. C. Brown.....	Peterborough; Villages of Ashburnham, Havelock, Lakefield, Norwood.....	Peterborough.	1,325 00
W. J. Summerby	Prescott and Russell; Towns of Hawkesbury, Vankleek Hill; Villages of Casselman, L'Orignal, Rockland.....	Russell.....	1,222 50
G. D. Platt, B.A	Prince Edward; Town of Picton; Village of Wellington.....	Picton.....	970 00
R. G. Scott, B.A	Renfrew; Towns of Arnprior, Pembroke, Renfrew; Villages of Cobden, Eganville.....	Pembroke....	2,117 00
J. C. Morgan, M.A.....	Simcoe, North; Towns of Barrie, Midland, Orillia, Penetanguishene.....	Barrie.....	1,400 00
Rev. Thomas McKee ...	Simcoe, South West; Towns of Alliston, Stayner; Villages of Beeton, Bradford, Creemore, Tottenham.....	Barrie.....	1,375 00
Isaac Day, B.A	Simcoe, East, and West Muskoka; Town of Gravenhurst; Village of Port Carling.....	Orillia.....	1,393 00
Alexander McNaughton.	Stormont; Town of Cornwall.....	Cornwall	1,145 00
J. H. Knight	Victoria, East; Town of Lindsay; Villages of Bobcaygeon, Omemee.....	Lindsay.....	786 50
Henry Reazin.....	Victoria, West, and South-East Muskoka; Town of Bracebridge; Villages of Fenelon Falls, Woodville.....	Lindsay.....	1,462 75
Thomas Pearce	Waterloo; Towns of Berlin, Galt, Hespeler, Preston; Villages of Ayr, Elmira, New Hamburg..	Berlin.....	2,170 00
J. H. Ball, M.A.....	Welland; Towns of Niagara Falls, Thorold, Welland; Villages of Bridgeburg, Chippewa, Fort Erie, Niagara Falls South, Port Colborne	Welland.....	1,350 00
David Clapp, B.A.....	Wellington, North; Towns of Harriston, Mount Forest, Palmerston; Villages of Arthur, Clifford, Drayton.....	Harriston	1,100 00
J. J. Craig, B.A..... ..	Wellington, South; Villages of Elora, Erin, Fergus	Fergus.....	1,100 00
J. H. Smith	Wentworth; Town of Dundas; Village of Waterdown.....	Hamilton	1,270 00
A. B. Davidson, B.A...	York, North; Town of Aurora, Newmarket; Villages of Holland Landing, Richmond Hill, Sutton.....	Newmarket ..	1,075 00
David Fotheringham....	York, South; Town of North Toronto, Toronto Junction; Villages of East Toronto, Markham, Stouffville, Weston, Woodbridge	Toronto.....	1,547 75
Donald McCaig	Districts of Algoma, Thunder Bay, Rainy River; Towns of Collingwood, Fort William, Port Arthur, Rat Portage, Sault Ste. Marie.....	Collingwood..	2,064 15
Rev. George Grant, B.A.	Districts of North Nipissing and West Parry Sound; Towns of Copper Cliff, Mattawa, North Bay, Parry Sound, Sturgen Falls, Sudbury..	Orillia.....	1,810 00
Wm. Houston, M.A	Manitoulin Island, etc.; Towns of Gore Bay, Little Current, Thessalon.....	Gore Bay	780 00

I —List of Inspectors, 1902.—*Concluded.*

Public School Inspectors.	Jurisdiction.	Post Office.	Salary (travelling expenses included in some cases) for 1901.
			$ c.
M. J. Kelly, M.D., LL.B.	City of	Brantford	400 00
Wm. Tytler, B.A	"	Guelph	500 00
W. H. Ballard, M.A	"	Hamilton	2,000 00
W. G. Kidd	"	Kingston	1,400 00
W. J. Carson	"	London	1,575 00
John C. Glashan, LL.D.	"	Ottawa	2,000 00
J. B. Grey	"	St. Catharines	400 00
S. Silcox, B.A., B. Paed.	Prin. Co. Model School, City of	St. Thomas	1,200 00
J. Russell Stuart	" " "	Stratford	1,100 00
James L. Hughes	City of	Toronto	2,300 00
W. F. Chapman	"	"	2,250 00
John Connolly	Town of	Brockville	900 00
Duncan Walker, B.A	"	Peterborough	1,100 00
Thomas Hilliard	"	Waterloo	80 00
		Total	99,779 90

Other Inspectors.	Post Office.	Salary, 1901.	Travelling expenses, 1901.	Total.	—
Separate School Inspectors:		$ c.	$ c.	$ c.	$ c.
James F. White	Toronto	2,000 00	300 00	2,300 00	
Wm. Prendergast, B.A.	Toronto	1,700 00	489 40	2,189 40	
Michael O'Brien	Peterborough	1,700 00	536 55	2,236 55	
Inspector of Bilingual Training and Elementary Schools:					
Telesphore Rochon, B.A	ClarenceCreek	1,500 00	245 20	1,745 20	
Inspector of Technical Schools:					
*Albert H. Leake	Toronto				
County Model School Inspector:					
John J. Tilley	Toronto	1,850 00	438 97	2,288 97	
High School Inspectors:					
John E. Hodgins, M.A.	Toronto	2,500 00	450 55	2,950 55	
John Seath, B.A., LL.D	Toronto	2,500 00	403 72	2,903 72	
Total				16,614 39	
Grand Total					116,394 29

* Appointed in 1902.

II.—Diplomas for School Premises, 1902.

Name of Inspector.	Jurisdiction.	No. of schools reported as receiving diplomas in 1902.	Name of Inspector.	Jurisdiction.	No of schools reported as receiving diplomas in 1902.
D. McDiarmid	Glengarry	24	H. D. Johnson	Middlesex, West	7
W. H. G. Colles	Kent, East	47	A. McNaughton	Stormont	8
D. D. Moshier	Lambton, West	5	J. H. Smith	Wentworth	25
W. W. Ireland	Lincoln	11			

APPENDIX E.—*PROCEEDINGS FOR THE YEAR 1902.*

I. CIRCULARS AND REGULATIONS.

Memorandum.

The accompanying amendments have been made in accordance with the widespread opinion that a higher standard should be exacted at the non-professional examinations for Public School Teachers' certificates, and that, in view of the as yet necessarily limited time at the disposal of many candidates, not all grades of Public School Teachers should be required to take Latin, and for the lowest grades, those subjects should be emphasized which will prove most serviceable to them in the discharge of their duties. No immediate change is proposed in the Senior Leaving subjects. The objections to the lowest grade of Public School Teachers being required to take Latin do not apply to the higher grades. For them, as well as for all High School teachers, a broader curriculum, including at least Latin of the languages, is both desirable and feasible.

The present amendments, it may be pointed out, will not disturb the organization of either the High or the Public Schools or necessarily interfere with the courses now partly completed by candidates for the Junior Leaving examinations. By reducing also the number of examinations and by confining the study of Latin to those pupils who will continue the subject long enough to derive due benefit therefrom, they will, in a measure at least, meet the most urgent needs of the schools. And further, it is hoped, that they will facilitate the settlement in the near future of the whole question of School programmes and the requirements for Teachers' certificates.

After September, 1905, the course for Public School Teachers' Non-Professional certificates at the Junior Leaving examinations will be a fixed one, consisting mainly of English and mathematics with science. No language will be either prescribed or optional. Students who are not likely to be ready to pass these examinations in 1905, or before that date with the

Erratum.

Page 70. Under heading "High School Inspectors," John E. Hodgins, M.A., should read John E. Hodgson, M.A.

[illegible] Junior Leaving Standing. (Regulations 25 and 45).

Part II. Junior Leaving.

At the examinations for 1903, a candidate for Part II Junior Leaving Standing who selects the Chemistry option may omit Latin, but he will be required, if he exercises this privilege, to obtain 60 per cent. on the total. (Regulations 43 (3) and 46.)

Junior Leaving Standing.

After June, 1903, a Part II. Junior Leaving certificate will give full Junior Leaving Standing, if endorsed and certified to by any High School Principal or Public School Inspector with a statement that the holder has taken the required course in all the subjects (geography, history, drawing, bookkeeping, reading, etc.) for Part I. Junior Leaving Standing.

Confidential Reports.

In addition to the requirements prescribed in regulation 43 (3) the name of no candidate for a Part II Junior Leaving certificate shall be included by the staff in the confidential report who has not satisfactorily completed the course for a Part I. Junior Leaving certificate.

District Certificates.

Examinations will be held as heretofore for District certificates, but such certificates shall be awarded only at the request of the County Board of Examiners where there is a scarcity of teachers, and with the concurrence of the Minister of Education. (Regulations 44, 63 and 64.)

REGULATIONS FOR PUBLIC SCHOOL LIBRARIES.

(Approved July, 1902.)

1. The Minister of Education may prepare a catalogue of books recommended for school libraries, the list to include mainly works suitable for children, in such departments as biography, history, geography, travel, mythology and fables, elementary science, citizenship, etc.

2. Any rural school board which provides a library for the scholars shall be entitled to a share of whatever money may be appropriated for the purpose by the Legislature, if it purchases such books as are contained in the approved list.

3. Every rural school board which establishes a library under these conditions shall be entitled to a grant, equivalent to half the amount expended, but not to exceed $10, in any one year, and provided the appropriation made by the Legislature will warrant such payment.

4. Should the appropriation made by the Legislature not be sufficient in any year to meet the demands arising from the establishment of rural school libraries, or additions thereto, whatever sum is granted for the purpose by the Legislature will be paid pro rata.

5. The powers heretofore held by trustees to establish school libraries are not affected by these provisions ; and Boards have full authority under the provisions of the statute to purchase books for the school library, and to make such selections as they may deem expedient. Any aid granted from the Legislative appropriation will, however, be based solely upon the amount expended for books given in the catalogue prepared by the Minister of Education.

6. The trustees will be required to make proper arrangements for the care of the library ; and the principal of the school will be librarian and act under such instructions as may be given by the Minister of Education, the Inspector, or the trustees of the school concerned.

7. All applications for legislative aid must be made, through the Public School Inspector to the Minister of Education, by the trustees, who shall

give all necessary information regarding the books purchased, together with such vouchers from the booksellers as may be required. The Inspector will make application to the Education Department on a form to be provided.

8. All applications by trustees for legislative aid must be made before the first day of July in each year and after the books have been received. Any purchases made after that date may be included in applications made the following year.

DEPARTMENTAL REGULATIONS.

(Approved August, 1902.)

TEXT-BOOKS AUTHORIZED FOR USE IN PUBLIC SCHOOLS, HIGH SCHOOLS AND TRAINING SCHOOLS.

1. The text-books named in Schedule "A" shall be the authorized text-books for Public Schools. Pupils taking any optional subject in the Public School course may use the text-book authorized in such optional subject. The text-books in French and German are authorized only for schools where the French or German language prevails and where the Trustees, with the approval of the Inspector, require French or German to be taught in addition to English. Text-books marked "optional" shall be introduced into the Public Schools only by resolution of the Board of Trustees. Books authorized in Forms I. and II. of the High School course may be used by pupils taking the corresponding subjects of Continuation Classes.

2. The text-books named in Schedule "B" shall be the only authorized text-books in High Schools and Collegiate Institutes for the course of study prescribed in Forms I., II. and III. Books authorized for use in the Public Schools may be used in Forms I. and II.

3. The text-books named in Schedule "C" shall be the authorized text-books for Model Schools, Normal Schools and the Ontario Normal College. Only such books shall be used by the teachers-in-training as may be ordered by the Principal.

4. Any text-books used in any school on the 1st July, 1902, and recommended by resolution of the Trustees to be continued in use, shall be deemed as authorized in such school until further notice. The vertical or slanting copy books heretofore authorized, and published by the Rose Publishing Company, may be used in any Public School.

5. For religious instruction, either the Sacred Scriptures, or the Scripture Readings adopted by the Education Department, shall be used as prescribed by the Regulations of the Education Department.

PUBLIC SCHOOLS. (SCHEDULE A.)

First Reader, Part I., or A Modern Phonic Primer (Morang) or The Public School Phonic Reader, Part I.	$0 10
First Reader, Part II., or Public School Phonic Primer, Part II.	0 15
Second Reader	0 20
Third Reader	0 30
Fourth Reader	0 40
High School Reader	0 50
Public School Arithmetic	0 25
Public School Algebra and Euclid	0 25
Public School Geography or Morang's Modern Geography	0 75
Our Home and Its Surroundings (for Junior Classes)	0 40

Public School Grammar or	0 25
Morang's A Modern English Grammar	0 60
Public School History of England and Canada	0 30
History of the Dominion of Canada (Fifth Form)	0 50
Public School Drawing Course, each number	0 05
Public School Physiology and Temperance	0 25
Public School Copy Book	0 07
Practical Speller	0 25
Public School Bookkeeping	0 25
Public School Agriculture	0 30
Public School Domestic Science (optional)	0 50

French-English Readers.

First Reader, Part I	0 10
First Reader, Part II	0 15
Second Reader	0 25
Third Reader	0 35

German-English Readers.

Ahn's First German Book	0 25
Ahn's Second German Book	0 45
Ahn's Third German Book	0 45
Ahn's Fourth German Book	0 50
Ahn's First German Reader	0 50

HIGH SCHOOLS AND COLLEGIATE INSTITUTES. (SCHEDULE B.)

English.

High School Reader	0 50
High School English Grammar	0 75
High School English Composition	0 50
Elementary English Composition (Sykes)	0 40
High School Composition from Models	0 75

History and Geography.

High School Geography or	1 00
Morang's Modern Geography	0 75
High School History of England and Canada	0 65
High School History of Greece and Rome	0 75
Or Myer's Ancient History—Greece and Rome—Canadian Edition	0 75
History of the Dominion of Canada—Clement	0 50

Mathematics.

High School Arithmetic	0 60
High School Algebra	0 75
Elements of Algebra, McLellan	0 75
High School Euclid (Books I., II., III., 50 cents)	0 75

Classics.

First Latin Book and Reader	1 00
Primary Latin Book and Reader	1 00
High School Beginner's Greek Book	1 50

Moderns.

High School French Grammar and Reader	1 00
High School German Grammar and Reader	1 00

Science.

High School Physical Science, Part I., 50 cents ; Part II	0 75
High School Botany, Part II	0 60
High School Chemistry	0 50

Bookkeeping and Drawing.

High School Bookkeeping	0 60
High School Drawing Course, each number	0 10

Cadet Drill.

High School Cadet Drill (optional)	0 40

TRAINING SCHOOLS. (SCHEDULE C.)

County Model Schools.

School Management, Millar	1 00
Methods in Teaching, Edited by Tilley	1 50
Public School Physiology and Temperance	0 25
Psychology Applied to Teaching, Baldwin	1 50
Hand Book of Method for Teaching Phonic Reading, MacCabe	0 50
Steps in the Phonic System, Cullin & Niven	0 50
Elementary Phonetics, Burt	0 35
Elementary Treatise on Arithmetic, Taylor	0 50
Mental Arithmetic, McLellan & Ames	0 30
Algebraical Exercises, Barnes	0 30
Introductory Goemetry, McLean	0 50
A Guide to Nature Study (Crawford)	0 90

Normal Schools.

Lectures on Teaching, Fitch	$1 00
School Management, Millar	1 00
Educational Reformers, Quick	1 50
Applied Psychology, McLellan	1 00
First Year at School, Sinclair	0 50
High School Cadet Drill Manual	0 40
Hints on Teaching Arithmetic, McLean	0 50
Public School Domestic Science	0 50

Ontario Normal College.

Applied Psychology, McLellan	1 00
Education, Spencer	0 50
School Management, Millar	1 00
School Management, Landon	1 50
Educational Reformers, Quick	1 50
High School Cadet Drill Manual	0 40
Physical Culture, Houghton	0 50
Physical Education, McLaren, Part II., sections II. and III.	2 00

TEACHERS' READING COURSE FOR 1903. (SCHEDULE D.)

Education of Teachers (Payne)	1 60
Foundations of Education (Seeley)	1 00
Horace Mann (Hinsdale)	1 00

NOTE.—Candidates for admission to the Normal Schools in August, 1903, will be examined on the Books in the Teachers' Reading Course as above.

MEMORANDUM.

In order to improve the course of study in the First Form of the Public Schools the Department has authorized two series of phonic readers. These readers are adapted to modern methods of teaching and are illustrated in colors as in the best text-books for primary classes. The adoption of new text-books in lieu of those already in use should be made only after due consideration by the teacher and the inspector. In the case of the primer, the cost being so trifling, the Department considers the expense involved in a change of little importance compared with the advantages to the pupils. Where either of the phonic readers authorized under schedule "A" is adopted no change should be made for a period of at least one year (the ordinary life of a primer) after such adoption.

SUMMER SCHOOL FOR TEACHERS.

The Education Department has made arrangements for a Summer School, to be held in Toronto at the beginning of the summer vacation. The purposes of the School are to give instruction in the following subjects: Manual Training, Domestic Science, Nature Study, Drawing, Music.

Classes will be organized so as to enable students to take one or more of these five departments. Lectures will be given in the courses by Specialists in the respective subjects. Any further information required will be obtained by students after the classes are organized. No fees will be required, and it may be presumed the cost of books, etc., will be slight. The School will be organized at the Normal School, Toronto, at 9 a.m., Wednesday, July 2nd, when all necessary information will be given. The session will continue for three weeks. Diplomas will be awarded to those students in attendance who show satisfactory proficiency.

Teachers or students who desire to avail themselves of the privilege offered, should make application at an early date to the Department. No special form of application will be needed; but bona fide application should be made as soon as possible, in order that places may be secured, and that the Department may be in a position to know fairly well the number of candidates for whom provision will be required.

Toronto, April, 1902.

DEPARTMENTAL INSTRUCTIONS.

High School Entrance Examination, 1902.

General.

1. The High School Entrance examination for 1902 will begin Wednesday, the 25th of June, at 8.45 a.m., and will be conducted under the provisions of Section 41 of the High Schools Act and Sections 23-27 of the Regulations, subject to the instructions herein contained.

2. Candidates who purpose writing at the examinations must notify the Public School Inspector before the 1st of May.

3. No teacher, who has pupils writing at the High School Entrance examination, shall be eligible as Examiner where such pupils are writing.

4. When the County Council recommends the holding of an examination at any place other than the High School, the presiding examiner shall be paid the sum of $3 per diem, and travelling expenses, for conducting such examination, and the examiners shall be allowed the sum of $1 per

candidate for reading the examination papers. It shall be lawful for the County Treasurer to pay all the expenses of such examination on the certificate of the County Inspector.

5. The course of study prescribed is that given in the Regulations of 1901. The paper in Arithmetic will include such questions as will specially test the accuracy of the candidates in the simple rules, as well as their knowledge of the subject ; and the paper in Dictation will call for the study of the authorized Spelling Book.

6. Candidates who fail at the Public School Leaving examination may be awarded High School Entrance certificates under the provisions of Regulation 29.

7. In 1902 and thereafter the following provisions are to be observed respecting the High School Entrance examination in Literature :—

a. Exclusive of the quotation question, each paper will consist of two parts ; (i) one containing questions on a passage from the prescribed selections ; and (ii) the other, questions on one or more passages from the rest of the reader ; and

b. The max. number of marks for (i) will be 25, and for the quotation question, 10 ; the other marks being assigned to the questions in the rest of the paper.

Literature Selections.

Fourth Ontario Reader.

1902—XV. Clouds, Rains and Rivers; XIX. The Death of the Flowers; XXXIII. The Skylark ; XXXIX. A Psalm of Life ; L. The Prairies ; LI. The Heroes of the Long Sault ; LIII. Scene from "Ivanhoe"; LXXI. The Heritage ; LXXIV. Song of the River ; LXXVI. Landing of the Pilgrims ; LXXIX. The Capture of Quebec ; LXXXII. The Ocean ; LXXXV. Marmion and Douglas ; XC. Mercy.

1903.—X. The Barefoot Boy ; XVIII. and XX. The Vision of Mirza ; XXIV. The Face against the Pane ; XXXVII. The Bell of Atri ; XXXVIII. The Discovery of America ; XL. Ring Out, Wild Bells ; XLIII. The Gulf Stream ; LXI. She was a Phantom of Delight ; LXIV. Ye Mariners of England ; LXXXVII. The Song of the Shirt ; LXXXIX. After Death in Arabia ; XCV. A Forced Recruit at Solferino; XCVIII. National Morality.

1904.—VIII. The Battle of Hastings ; XXIII. On His Own Blindness ; XXVI. From "The Deserted Village"; XXXIV. Death of Little Nell ; XLII. Lady Clare ; LIX. Yarrow Unvisited ; LX. To a Skylark ; LXIX. The Changeling ; LXXVIII. Riding Together ; LXXX. Waterloo ; LXXXIV. and LXXXVI. King Richard and the Nubian; XCII. Edinburgh after Flodden.

Selections for Memorization.

1902.—II. I'll Find a Way or Make It ; XI. The Evening Cloud ; XXI. Oft, in the Stilly Night ; XXXI. To Mary in Heaven ; XLVII. Rock of Ages ; LXVI. Before Sedan ; XCIV. The Ride from Ghent to Aix ; CV. Elegy, Written in a Country Churchyard.

1903.—V. Pictures of Memory ; XIII. The Bells of Shandon ; XXII. 'Tis the Last Rose of Summer ; "Breathes there a man with soul, etc.," (page 79); XXXII. Flow Gently, Sweet Afton ; LII. Jacques Cartier ; LXXIII. The Three Fishers ; CV. Elegy, Written in a Country Churchyard.

1904.—VII. Boadicea ; XIV. Lament of the Irish Emigrant ; XXIX. For A'That and A'That ; XLVI. Lead Kindly Light ; LIV. Lochinvar ; LXXXIII. The Influence of Beauty ; Sonnet—Night (page 302); CV. Elegy, Written in a Country Churchyard.

Literature Selections.

Canadian Catholic Fourth Reader.

1902.—VI. Lead Kindly Light ; IX. The Barefoot Boy ; XXV. Going A-Maying ; XXXIII. Dickens in Camp ; XXXVIII. Song of the Camp ; XLIII. Free-Will and Habit ; LXVIII. The Reaper ; LXIX. Voyage of Columbus ; LXXII. King Robert of Sicily ; LXXXV. The Psalm of Life ; XCIV. The Combat ; XCV. Joan of Arc ; C. The Chariot Race ; CVIII. The Church of God.

1903.—XIII. The Deserted Village ; XXI. Excelsior ; XXIX. In the Great Fur-Land ; XLI. Yarrow Visited ; LIV. The Ballad of Baby Bell ; LIX. Ye Mariners of England ; LX. Wolfe at Quebec ; LXIII. My Garden Acquaintance ; LXVII. Macarius, the Monk ; LXXVII. Lines on My Mother's Picture ; XCVI. The Virgin ; CIII. Conversion of England ; CXIV. A Bell's Biography ; CXVI. Veni Creator.

1904.—XX. The Exile of Erin ; XXIII. The Destruction of Sennacherib ; XLVI. The Chase ; LVI. The Heritage ; LVII. Paradise and the Peri ; LXV. The Journey to Bethlehem ; LXXI. The Air and Water ; LXXIII. Our New Neighbors ; LXXXI. The Angelus ; LXXXVI. Discovery of Lake Champlain ; CIV. On His Blindness ; CV. The Crusader and the Saracen ; CVI. A Day in June ; CXII. Ode to Autumn ; CXIX. The Greatness of God.

Selections for Memorization.

1902.—XII. Give Freely ; XVIII. Abou Ben Adhem and the Angel ; XXXIX. In Memory of My Brother ; XLVII. Love of Country ; LXIV. The Waterfowl ; LXXXI. The Angelus ; CII. To the Night ; CXVIII. Elegy, Written in a Country Churchyard.

1903.—I. The Maple ; III. The Four-leaved Shamrock; VII. The Daffodils ; XXVIII. The Fig Merchant ; XLII. Home Thoughts from Abroad ; XCIII. God, the Comforter ; CX. Our Lady in Italy ; CXVIII. Elegy, Written in a Country Churchyard.

1904.—VI. Lead, Kindly Light; X. Flow Gently, Sweet Afton; XXXV. Step by Step ; LI. Song of the River ; LIII. As I Came Down from Lebanon ; CI. Inscription for a Spring ; CXV. The Bells of Shandon ; CXVIII. Elegy, Written in a Country Churchyard.

Duties of Inspector.

8. The Inspector shall notify the Department not later than the 3rd day of May in each year, of the number of persons desiring to be examined at any High School or other authorized place within his jurisdiction.

9. In any city or town forming a separate inspectoral division, the Inspector or Inspectors of such city or town shall preside at the examinations, and in conjunction with the Board of Examiners for such city or town shall read the papers and report to the Department.

10. In counties in which more High Schools than one are situated, the Inspector for the county shall elect at which High School he will preside, and shall notify the Department of the choice he makes, and in each of the other High Schools the Principal of the High School shall preside.

11. In the case of examinations affiliated with a High School, the Inspector, within whose district such affiliated examinations are held, shall appoint presiding examiners, who shall be teachers in actual service, notice of which shall be sent to the Education Department ; and such Inspector, together with the examiners of the High School with which the examination is affiliated, shall be the Board of Examiners in all such cases.

12. Where from the number of candidates, or any other cause, additional presiding examiners are required, the Inspector shall make such appointments as are necessary, preference being given to the other members of the Board of Examiners. The Inspector shall not appoint as presiding examiner any teacher who has taken part in the instruction of any of the candidates in the room where he presides, or who is not in actual service.

13. Where more examinations than one are held in an inspectoral division, the papers will be sent by the Education Department to the Inspector or the presiding examiner, as the case may be.

14. The parcel containing the examination papers shall not be opened till the morning of the examination day, nor shall any envelope containing the papers in any subject be opened until the time appointed in the time-table for the examination in such subject.

Duties of Presiding Examiners.

15. To be in attendance at the place appointed for the examination at least fifteen minutes before the time fixed for the first subject, and to see that the candidates are supplied with the necessary stationery and seated so far apart as to afford reasonable security against copying.

16. To open the envelope containing the papers in each subject in full view of the candidates, at the time prescribed, and to place one paper on each candidate's desk.

17. To exercise proper vigilance over the candidates to prevent copying and to allow no candidate to communicate with another, nor permit any person except a co-examiner to enter the room during examination.

18. To see that the candidates promptly cease writing at the proper time, fold and endorse their papers properly, and in every respect comply with the instructions herein contained.

19. To submit the answers of the candidates to the examiners, according to the instructions from the Board.

Duties of Candidates.

20. Every candidate should be in attendance at least fifteen minutes before the time at which the examination is to begin, and shall occupy the seat allotted by the presiding examiner. Any candidate desiring to move from his allotted place or to leave the room shall first obtain permission from the presiding examiner to do so. Any candidate leaving shall not return during the examination in the subject then in hand.

21. Every candidate shall write his answers on one side only of the paper, and shall number each answer. He shall arrange the sheets numerically, according to the questions, and fold them once crosswise, endorsing them with his name, the name of the subject, and the name of the place at which he is examined. No paper shall be returned to a candidate after being placed in the hands of the presiding examiner.

22. Any candidate who is found copying from another or allowing another to copy from him or who brings into the examination room any book, note or paper having any reference to the subject on which he is writing, shall be required by the presiding examiner to leave the room, and his paper and the papers of all the guilty parties shall be cancelled.

Duties of Examiners.

23. The papers of the different candidates shall be so distributed that the same examiner shall read and value the answers in the same subject throughout.

24. Marks are to be deducted for mis-spelt words and for want of neatness as indicated in regulation 25, and on the question papers.

25. Each examiner shall mark distinctly in the left hand margin the value assigned by him to each answer or partial answer, shall sum up the total on each page at the foot of the margin, and shall place the general total on the back of the outside sheet, indicating the deductions for mis-spelt words and the deductions for want of neatness thus, e.g., History, 60—5sp—3n 52, and initialing each set of papers examined.

26—(a). The reports of the examiners are to be sent (by mail) to the Education Department on or before the 20th day of July by the Public School Inspector.

(b) The bag which contains the question papers is to be returned to the Department (charges prepaid) at the same time as the reports are sent.

(c) The answer papers of candidates, unless when specially requested, are not to be forwarded to the Department, but are to be retained by the Inspector until October 1st, after which no case is to be re-considered.

(d) The Inspector shall issue a certificate to each candidate who passes the High School examination.

(e) The names of all candidates admitted by the Board of Examiners may be published immediately after (but not before) the reports have been transmitted to the Education Department.

EXAMINATIONS, 1903.

Prescribed Texts.

The examinations for Part II. Junior Leaving and for Senior Leaving Standing for 1903 will be held like those for 1902, under the provisions of the revised Regulations of 1901. The prescribed texts for 1903 are as follows :—

PART II. JUNIOR LEAVING STANDING.

English.

Coleridge.—The Ancient Mariner.

Wordsworth.—Michael, Influence of Natural Objects, Nutting, Expostulation and Reply, The Tables Turned, The Solitary Reaper, Ode to Duty, Elegiac Stanzas, To Rev. Dr. Wordsworth, "She was a Phantom of Delight," To the Cuckoo, The Green Linnet, "Bright flower whose home," To a Skylark, "Ethereal Minstrel," "Reverie of Poor Susan," To my Sister, "Three years she grew," September 1819, Upon the same Occasion. The following twelve Sonnets:—"Two voices are there," "Scorn not the Sonnet," "A flock of sheep that leisurely," "Earth hath not anything," "It is not to be thought of," "Fair Star of Evening," "O Friend ! I know not," "Milton ! thou shouldst," "When I have borne in memory," "Brook ! whose Society," "Tax not the Saint," "They dreamt not of a perishable home."

Shakespeare.—Merchant of Venice.

Latin.

Cornelius Nepos.—Lives of Themistocles, Aristides and Hannibal.

Caesar.—Bellum Gallicum, Bk. IV. (omitting chap. 17), and Bk. V., chaps. 1-23.

Vergil.—Aeneid, Bk. II. (1-505).

Greek.

Selections from Xenophon, Anabasis I., in White's Beginner's Greek Book (pp. 304-428), with the exercises thereon.

Homer.—Iliad VI.

French.

Lamennais, Paroles d'un Croyant, chaps. VII. and XVII.; Perrault, le Maitre Chat ou le Chat Botte ; Dumas, Un nez gele and la Pipe de Jean Bart; Alphonse Daudet, la Derniere Classe, and la Chevre de M. Sequin; Legouve, la Patte de dindon; Pouvillon, Hortibus; Loti, Chagrin d'un vieux forcat; Moliere, l'Avare, Acte III. sc. 5 (Est-ce a votre cocher—sous la mienne); Victor Hugo, Waterloo, chap. IX.; Rouget de L'Isle, la Marsiellaise; Arnault, la Feuille; Chateaubriand, l'Exile; Theophile Gautier, la Chimere; Victor Hugo, Extase; Lamartine l'Automne; De Musset, Tristesse; Sully Prudhomme, le Vase brise; La Fontaine, le Chene et le Roseau.

Feuillet, le Village.

German.

Grimm, Rotkappchen; Andersen, Wie's der Alte Macht, Das neue Kleid, Venedig, Rothschild, Der Bar; Ertl, Himmelsschlussel; Frommel, Das eiserne Kreuz; Baumbach, Nicotiana, Der Goldbaum; Heine, Lorelei, du bist wie eine Blume; Uhland, Schafer's Sonntagslied, Das Schloss am Meer; Chamisso, Das Schloss Boncourt; Claudius, Die Sterne, Der Riese Goliath; Goethe, Mignon, Erlkonig, Der Sanger; Schiller, Der Jungling am Bache; Leander, Traumereien, pp. 45-90 (selected by Van Daell).

SENIOR LEAVING STANDING.

English.

Coleridge.—The Ancient Mariner.

Wordsworth.—Michael, Influence of Natural Objects, Nutting, Expostulation and Reply, The Tables Turned, The Solitary Reaper, Ode to Duty, Elegiac Stanzas, To Rev. Dr. Wordsworth, "She was a Phantom of Delight," To the Cuckoo, The Green Linnet, "Bright flower whose home," To a Skylark, "Ethereal Minstrel," "Reverie of Poor Susan," "To my Sister." "Three years she grew," September 1819, Upon the same Occasion.

The following twelve sonnets: "Two voices are there," "Scorn not the Sonnet," "A flock of sheep that leisurely," "Earth hath not anything," "It is not to be thought of," "Fair Star of Evening," "O Friend! I know not," Milton! thou shouldst," "When I have borne in memory," "Brook! whose Society," "Tax not the Saint," "They dreamt not of a perishable home."

Shakespeare.—Merchant of Venice, As You Like It.

Latin.

Cornelius Nepos.—Lives of Themistocles, Aristides and Hannibal.

Caesar.—Bellum Gallicum, Bk. IV. (omitting chap. 17), and Bk. V., chaps. 1-23.

Vergil.—Aeneid, Bk. II. (1-505).

Horace.—Odes III. and IV.

Cicero.—Pro Lege Manilia, Pro Marcello, Philippic XIV.

Greek.

Xenophon.—Anabasis I. (chaps. I.-VIII.); Homer—Iliad VI., Odyssey XVII.

Lucian.—Timon; Lysias,—Pro Mantitheo and de Invalido.

French.

Lamennais, Paroles d'un Croyant, chaps. VII. and XVII.; Perrault, le Maitre Chat ou le Chat Botte; Dumas, Un nez gele and la Pipe de Jean Bart; Alphonse Daudet, la Derniere Classe, and la Chevre de M. Seguin; Legouve, la Patte de dindon; Pouvillon, Hortibus; Loti, Chagrin d'un vieux forcat; Moliere, l'Avare, Acte III., sc. 5 (Est-ce a votre cocher—sous la mienne); Victor Hugo, Waterloo, chap. IX.; Rouget de L'Isle, la Marseillaise; Arnault, la Feuille; Chateaubriand, l'Exile; Theophile Gautier, la Chimere; Victor Hugo, Extase; Sully Prudhomme, le Vase brise; La Fontaine, le Chene et le Roseau; Feuillet, le Village; Dumas, la Tulipe noire.

German.

Grimm, Rotkappchen; Andersen,Wie's der Alte Macht, Das neue Kleid, Venedig, Rothschild, Der Bar; Ertl, Himmelsschlussel; Frommel, Das eiserne Kreuz; Baumbach, Nicotiana, Der Goldbaum; Heine, Lorelei, du bist wei eine Blume; Uhland, Schafer's Sonntagslied, Das Schloss am Meer; Chamisso, Das Schloss Boncourt; Claudius, Die Sterne, Der Riese Goliath; Goethe, Mignon, Erlkonig, Der Sanger; Schiller, Der Jungling am Bache; Leander, Traumereien, pp. 45-90 (selected by Van Daell) ; Baumbach, der Schweigersohn, Elz, er ist nicht Eiffersuchtig; Wichert, Post Festum.

PROVINCIAL NORMAL KINDERGARTEN SCHOOLS.

The Normal Schools are situated in Ottawa and Toronto.

All communications must be addressed to the Deputy Minister of Education, Toronto, and applications must be made on the regular form, accompanied with the fee of $5.

Kindergarten Certificates, Examinations and Syllabus.

1.—(1) No person shall be appointed to take charge of a Kindergarten in which assistant teachers or teachers-in-training are employed, who has not passed the examination prescribed for Director of Kindergartens ; and no person shall be paid a salary or allowance for teaching under a Director who has not passed the examination prescribed for assistant teachers.

(2) No person shall be admitted to the course of training prescribed for assistants who is not seventeen years of age and who does not hold a primary certificate, or who has not spent at least three years in a High School. No person shall be admitted to the course prescribed for Directors unless such person has obtained an Assistant's certificate.

(3) Any person who attends a Kindergarten for one year and passes the examinations prescribed by the Education Department shall be entitled to an Assistant's certificate ; and the holder of an Assistant's certificate, shall, on attending a Provincial Kindergarten one year and on passing the prescribed examinations, be entitled to a Director's certificate.

(4) Any person holding a Second Class Certificate, shall, on attending a Provincial Kindergarten one year and passing the examinations required by the Education Department, obtain a Director's certificate.

(5) The Minister of Education, may, at his discretion, accept the certificate of any other training school for Kindergarten work, as the equivalent of the Departmental Kindergarten examinations, or he may limit Kindergarten certificates to any city or town, as he may deem expedient.

Examinations.

2.—(1) The Minister of Education shall prescribe the time and place for Kindergarten examinations, and shall appoint such Examiners in the Theory and Practice of Kindergarten work as he may deem expedient. The examination for Directors shall embrace the General Principles of Froebel's System, 150 marks ; Theory and Practice of the Gifts and Occupations, 100 marks ; Mutter and Kose-Lieder, 100 marks ; Miscellaneous Paper, 100 marks ; Practical Teaching, 500 marks; and Book-work for those taking one year's course, 400 marks. The examination for Assistants shall embrace the Theory and Practice of the Gifts, two papers ; Theory and Practice of the Occupations, one paper ; Miscellaneous Paper, each paper, 100 marks ; Book-work, 400 marks.

(2) The Director of each Kindergarten sending up candidates to the examination for Assistants' certificates shall be required to certify to the Education Department that the Pease-work and Modelling have been satisfactorily completed.

THE COURSE OF STUDY FOR KINDERGARTNERS.

Assistants (Junior Year.)

Kindergarten Gifts.

At the conclusion of the course of training for the Junior Year, candidates for examination should be qualified to explain the gifts, their general objects as well as their specialties ; how they are graded and why ; their connection with other branches of kindergarten work ; also a full explanation of the general method of the kindergarten and its application in exercises with the gifts. For this purpose a knowledge of the broad phases of mind development will be necessary, such as feeling, thought and will.

As the gifts have a mathematical foundation, a knowledge of the elements of geometry will be required.

All the practical work must be submitted in Gift Book.

1st Gift. (Balls):—A series of songs that may be used in connection with exercises given with 1st Gift. Not less than six songs. (To be memorized). Classify these songs and give an exercise illustrating each characteristic.

2nd Gift. (Ball, Cube, Cylinder, Cone):—A series of songs that may be used in connection with exercises given with the 2nd gift. Not less than six songs (to be memorized). Classify songs and give an exercise illustrating each characteristic.

3rd Gift. (Building):—Four original sequences, forms of life ; not less than eight forms in each sequence. Three original sequences in forms of beauty ; not less than eight forms in each sequence.

4th Gift. (Building):—Three original sequences, forms of life; not less than eight forms in each sequence. Three original sequences, forms of beauty ; not less than eight forms in each sequence. Building problems for estimating dimensions, cubic contents, etc., not less than four problems. Exercises illustrating balance, surface representation, communicated motion.

5th Gift. (Building):—A list of original forms of life ; not less than twelve. Two original sequences, forms of beauty ; not less than three changes in each sequence. Five sequences, forms of knowledge : (a) Three sequences of geometrical forms. (b) Fractional divisions, 3rd, 9th, 27th. (c) Fractional divisions, 3rd, 6th, 12th. Development of mathematical prisms; square prisms; triangular prisms. Suggestions for different kinds of numerical exercises that may be given with the 5th Gift. To be worked out thoroughly in Gift Book.

6th Gift (Building):—A list of original forms of life ; not less than six forms. Two original sequences, forms of beauty ; not less than three changes in each sequence. Building problems ; not less than six problems in the list ; to be worked out in the Gift Book.

7th Gift. (Tablets):—Description, derivation, definition. Position of one tablet ; relative positions of two tablets. Mathematical figures that may be produced by combining two tablets; mathematical figures produced by combining three tablets. Five life forms with two tablets ; five life forms with four tablets ; five life forms with eight tablets ; five life forms with sixteen tablets ; two life forms with thirty-two tablets ; two miscellaneous forms of life. All forms to be drawn in Gift Book.

Forms of beauty (original):—From a given centre, not less than two forms ; repetition, not less than two forms ; in sequence, not less than two sequences.

Development of all geometrical figures, to three sizes :—Triangle, Square, Oblong, Rhomboid, Rhomb, Trapezoid, Hexagon, Octagon. Define each form.

Comparison of geometrical figures formed from a given number of tablets.

8th Gift. (Sticks).—Candidates must submit not less than three forms with each number of the following combination :—

Combination of sticks into life forms, using four sticks, even lengths, combination of sticks into life forms using eight sticks, even lengths ; life forms with sixteen sticks, different lengths ; life forms, using sticks of any length ; not less than five forms.

Forms of beauty (original):—From a given centre, not less than two forms ; repetition not less than two forms ; two sequences, not less than five changes.

9th Gift. (Rings):—Relative position of one large and one small ring ; relative position of one ring of the threee sizes ; position of one half-ring ; relative position of two half-rings ; relative position of one half-ring and one whole ring. Life forms with five rings, not less than three drawn ; life forms with ten rings, not less than three drawn ; life forms with four half-rings, not less than three drawn ; life forms with eight half-rings, not less than three drawn ; miscellaneous forms of life with rings, half-rings and quarter-rings, not less than three drawn.

Forms of beauty, using rings, half-rings and quarter-rings, not less than three forms. Miscellaneous forms, using rings, half-rings, quarter-rings and sticks, of any size, two forms.

Kindergarten Occupation.

Candidates must be qualified to explain the use of the kindergarten occupations, their connections with other branches of the work, the application of the general method of the kindergarten to the exercises given with them. All practical work must be submitted in Occupation Book.

Sewing :—Illustrate an original school of sewing, comprising not less than fifty different figures, logically connected and illustrating the following lines and their combinations :—Vertical lines, horizontal lines, slanting lines of all orders, curves.

Rules of Sewing inventions :—Vertical and horizontal lines of any length :—Two forms of life, two forms of beauty.

Slanting lines, first order, any length :—Two forms of life, two forms of beauty.

Slanting lines, second order :—One form of life, one form of beauty.

Slanting lines, first and second orders combined, any length, form of beauty. An invention in all elements thus far given. An invention in

quarter-circles, an invention in half-circles, an invention in circles, an invention using circles, half-circles, quarter-circles. An invention in all elements thus far given. Six miscellaneous inventions, either life or beauty, two of which must be mosaics.

Drawing :—Combine five vertical lines from one to five lengths into a triangle, repeat this triangle in four different positions, combine these four triangles into, a solid figure, a hollow figure, two intermediate figures.

From the solid and hollow figures form four limbs :—First limb—Place the lower half of the solid figures below the lower half of the hollow figure. Second limb—Place the upper half of the solid above the upper half of the hollow figure. Third limb—Place the right half of the solid to the right of the right half of the hollow figure. Fourth limb—Place the left half of the solid to the left of the left half of the hollow figure.

Combine these four limbs into a large solid figure ; reversing the position of the limbs, combine them into a large hollow figure.

From the four original triangles make two twisting figures.

From these twisting figures make two limbs thus :—By placing the right half of each figure to the left of the left half of the same figure.

Using each of these limbs twice, make two large figures. In the first figure the original solid will appear ; in the second figure the original hollow will appear.

Repeat these eight rules in :—Slanting lines, first order ; squares without to three sizes ; half-circles.

Drawing inventions :—1st Set—Vertical and horizontal lines one length :—Two forms of life, two forms of beauty.

Vertical and horizontal lines of all lengths. Two forms of life, two forms of beauty. Slanting lines, 1st order, all lengths, three forms.

Slanting lines, all orders, all lengths, two forms.

2nd—Squares combined with vertical and horizontal lines ; squares using all lengths, form of life ; right isosceles triangles, all sizes, a form of life, a form of beauty ; equilateral triangles, all sizes, a form of beauty; scalene triangles, all sizes, a form of beauty ; obtuse isosceles triangles, all sizes, a form of beauty ; all triangles combined, a form of beauty ; two inventions in quarter circles, one border form ; two inventions in half-circles, one border form ; two inventions in circles, one border form ; an invention in quarter-circles, half-circles and circles combined, all sizes, to be colored ; all elements thus far given ; four miscellaneous inventions ; six freehand sketches suitable for children's coloring, to be colored ; six freehand sketches for blackboard illustration of song or season, to be colored.

Coloring (crayons or water colors). A sequence of forms showing development and combination of color ; six inventions in geometric forms, combined into figures and borders ; three designs suitable for oil cloth, carpet or wall paper.

Mat weaving : 1st Set : Strips of uneven widths :—1 up, 1 down, taking narrow with narrow and wide with wide ; 1 up, 1 down, taking narrow with wide and wide with narrow. 2nd Set-: Strips of equal width—1 up, 1 down; 2 up, 2 down; 2 up, 1 down; 2 up, 1 down; 1 up, 2 down; 2 up, 1 down; 1 up, 1 down; 3 up, 3 down; 3 up, 1 down; 3 up, 2 down; 3 up, 3 down, in steps of four ; 3 up, 1 down, 1 up 1 down ; 1 down, 2 up, in steps of four ; 1 down, 2 up, continued steps from right to left ; 1 down, 2 up, continued steps from left to right; 1 down, 2 up, continued steps, reversed; 1 down, 2 up, angles to centre ; 1 down, 2 up, angles outward ; 2 down, 2 up, in steps of three ; 2 down, 2 up, continued steps from right to left ; 2 down, 2 up, continued steps from left to right ; 2 down, 2 up, continued steps reversed ; 2 down, 2 up, angles to centres ; 2 down, 2 up, angles outward.

Free Weaving :—Book-mark—Two vertical strips with cross strips ; Napkin ring—four vertical strips and cross strips ; Picture frame—5 x 5 inches ; Basket—with or without cover ; miscellaneous forms.

Mat inventions :—Two inventions in twos ; two inventions in twos and ones ; two inventions in threes ; two inventions in threes and ones ; two inventions in threes and twos and ones ; six miscellaneous inventions (forms of beauty, loose strips not allowable).

Folding :—An original sequence of life forms suitable for children 4 years of age.

Folding (salt-cellar ground form), salt-cellar, star, King's crown, Queen's crown, pepper box, satchel. Folding (double salt-cellar ground form), cap, muff, boots, bobbin, shirt, trousers.

An original set of life forms suitable for seniors, not less than six forms.

Folding (tablecloth, ground form). An original sequence of life forms, not less than eight forms.

Table cloth, ground form:—Table cloth, table, handkerchief case, windmill, vase.

Six miscellaneous forms of life.

Folding (salt cellar, ground form), forms of beauty.

The fundamental form is given and by a change in three directions, various forms are produced :—From without, turned inward, from within, turned outward, combination. From these rules form two sequence forms of beauty, not less than six forms.

Tablecloth forms of beauty:—Tablecloth forms of beauty consist of five modifications, hexagon, trapezium from within turned outward, trapezium from without turned inward, rhomb, rhomboid. Arrange sequences in the book in symmetrical forms.

Inventions required :—Eighteen original inventions from salt-cellar ground form. Eighteen original inventions from tablecloth ground form. One combination not less than eight original forms combined in one large figure. One original set of forms from circular paper, not less than eight forms. One original set of forms from triangular paper, not less than eight forms.

Cutting :—Right isosceles ground form, not less than eighteen figures in logical sequence. Equilateral triangle, ground form, not less than eighteen figures in logical sequence. Circular paper, not less than twelve forms in logical sequence. Freehand cutting, not less than twelve forms.

Parquetry—Two forms using circles, a form of life, a form of beauty. Two forms using squares, a form of life a form of beauty. A form of beauty using right isosceles triangles (a border.) A form of beauty using equilateral triangles. A form of beauty emphasizing color by contrast and combination—any form may be used (a mosaic).

Kindergarten pease work :—With one stick, a list of objects, not less than five. With three sticks, Triangles, right isosceles, acute isosceles, obtuse isosceles, scalene triangle, obtuse scalene, equilateral triangle ; triangular prism, right anl oblique ; tetrahedron ; One form of life from a triangular prism ; one form of beauty from the equilateral triangle.

Quadrilaterals :—Square ; square prism, right and oblique ; pyramid from a square base ; four life forms from a square prism ; four forms of beauty from a square centre.

Rectangular parallelopiped ; two forms of life from rectangular parallelopiped ; rhombic prism ; rhomboidal prism, trapezoidal prism ; trapezium ; pentagonal prism ; two forms of life from pentagonal prism ; one form of beauty from pentagonal centre.

Hexagonal prism ; life form from hexagonal prism ; two forms of beauty from hexagonal centre.

Octagonal prism ; two forms of life from octagonal prism ; two forms beauty from octagonal centre.

Six miscellaneous forms of life.

Six miscellaneous forms of beauty (double).

Kindergarten modelling :—Make each of the following typical forms in solid, half-solid and plane : Sphere, oblate spheroid, prolate spheroid, ovoid, cube, cone (solid form), frustrum, conoid, cylinder (solid form). Make one object from each of the above forms.

Make one combination of the solid, half-solid and plane from each type.

Six miscellaneous inventions made large:—One large ornamental vase. one fruit basket and fruit, two animals.

Songs, Games and Stories :—Songs and games ; candidates should be qualified to explain the general objects of the songs and games, the general value of the following groups of songs, with illustrations ; finger plays, nature songs, trade songs, sense songs, songs of the Knights, light songs. The significance of gesture and the principles by which they should be guided in the selection of songs and games. Stories : candidates should be qualified to explain the value of stories, to classify them and show by what principles they should be guided in their selection.

Natural Science :—Candidates should possess a knowledge of elementary science, particularly of animals, plants, earth, air and water, and should be able to illustrate the interesting portions of these subjects in stories and conversations with the children. They are required to know the nature and habits of animals that come within the experience of children, such as common quadrupeds, horse, cow, sheep, dog, cat, squirrel ; common birds, pigeon, duck, sandpiper, robin, bluebird, song sparrow, canary, woodpecker and crow; fish, butterflies, bees, flies, spiders, frogs, snails, crickets and ants. They are required to know the different parts of a plant and their functions ; also the structure and life of six common plants such as the aster, buttercup, violet, trillium, marguerite and dandelion ; and three common trees, evergreen, oak and maple.

The miscellaneous paper for the first year's training shall include questions on natural science, songs, games and stories, general method of mind development and its application in the kindergarten, the life of Froebel.

Books that bear directly upon the junior course :—Love and Law in Child Training, by Emilie Poulsson ; Educational Reformers, Quick (last edition); Reminiscences of Froebel, Baroness von Bulow; Mutter und Kose-Lieder, Froebel ; Education by Work, Baroness von Bulow ; Guide to Gift, Mad. Kraus Boelte ; Guide to Occupation, Mad. Kraus Boelte ; Fairy Land of Science, Buckley; Magic Glasses, Buckley; Botany, Spotton; A Study of Child Nature, Elizabeth Harrison ; Froebel's Letters, Michaelis and Moore ; A Guide to Nature Study, Crawford ; The Student's Froebel, Herford ; Froebel's Gifts, Kate D. Wiggin and N. Smith ; Froebel's Occupation, Kate D. Wiggin and N. Smith ; Kindergarten Principle and Practice, N. Smith ; Dickens as an Educator, James L. Hughes ; Froebel's Educational Laws, James L. Hughes.

Books that may be consulted by juniors :—In the Child's World, E. Poulson ; In Story Land, E. Harrison ; Sundays at Yoho, Campbell ; Tanglewood Tales, N. Hawthorne ; Wonder Book, N. Hawthorne ; Myths and Mythmakers, Fiske ; Education of Self Activity, Courthope Bowen ; Lectures to Kindergartners, E. Peabody ; Handwork and Headwork, Baroness von Marenholtz Bulow ; Children's Rights, N. A. Smith ; The Children of the Future, N. A. Smith ; Stories of Star Land, Proctor ; Fairy Tales,

Anderson; Our Native Trees, Keeler; Birdcraft, Mabel Osgoode Wright; Birds of Ontario, McIlwraith.

Course of study for kindergarten directors :—Philosophy of Froebel. Psychology, Advanced Theory and Practice of Froebel's Gifts, Advanced Theory and Practice of the Occupations, Die Murter and Kose Lieder ; The History of Education—Quick's Educational Reformers ; Botany (see regulations); Natural Science—Life and Her Children and Winners in Life's Race, Buckley.

This course in natural science includes a study of the universal laws of development as applied to both nature and mind. It also includes a practical knowledge of natural history and microscopic analysis.

Music, Drawing, Physical culture.

A course of reading, including the study of one standard work of literature.

Books that may be consulted by seniors :—Education by Development, Froebel ; Education of Man, Froebel ; Pedagogics of the Kindergarten, Froebel ; Symbolic Education, S. E. Blow ; Letters to a Mother, S. E. Blow; Two Children of the Foot-hills, E. Harrison; Froebel's Educational Laws, J. L. Hughes ; Mottos and Commentaries of Froebel's Mother Play, S. E. Blow ; Psychologic Foundations of Education, Dr. W. T. Harris ; The Life of Froebel, Denton Snider ; The Infant Mind, Preyer ; Child Study, Sully ; Psychology of Infancy, Dr. F. Tracy ; Psychology, Dr. John Dewey, Chicago University ; The Study of the Child, Taylor.

APPORTIONMENT OF THE LEGISLATIVE PUBLIC SCHOOL GRANT FOR 1902.

The apportionment of the Grant to the several municipalities is based upon the latest Returns of Population for the year 1901, and the division between the Public and Separate Schools on the average attendance of that year, as reported by the Inspectors, Public School Boards, and Separate School Trustees respectively.

While the Separate Schools will receive their portion of the Grant direct from the Department, that of the Public Schools will be paid, according to this Schedule, through the respective County, City, Town, and Village Treasurers.

Under the provisions of Section 5 of "An Act respecting the Education Department, 1901," the Education Department is empowered "to "appropriate out of moneys voted by the Legislature for public and separate schools, a sum not exceeding $5.00 for every school in which the Regulations of the Department as to equipment, ventilation, heating, lighting and the care of the premises generally have been complied with."

Each County Inspector is therefore authorized to deduct from the apportionment of each township such an amount as will provide the sum of $5.00 to be paid on his order to each Trustee Board that has complied with the requirements mentioned.

Toronto, May, 1902.

PUBLIC SCHOOL APPORTIONMENT TO COUNTIES FOR 1902.

1. COUNTY OF BRANT.

Municipalities.	Apportionment.
Brantford	$639 00
Burford	499 00
Dumfries, South	314 00
Oakland	85 00
Onondaga	130 00
Total	$1,667 00

2. COUNTY OF BRUCE.

Municipalities.	Apportionment.
Albemarle	$181 00
Amabel	438 00
Arran	289 00
Brant	455 00
Bruce	362 00
Carrick	298 00
Culross	242 00
Eastnor	202 00
Elderslie	261 00
Greenock	266 00
Huron	432 00
Kincardine	319 00
Kinloss	272 00
Lindsay and St. Edmunds	135 00
Saugeen	179 00
Total	$4,331 00

3. COUNTY OF CARLETON.

Fitzroy	$293 00
Gloucester	531 00
Goulbourn	299 00
Gower North	269 00
Huntley	268 00
March	75 00
Marlborough	182 00
Nepean	459 00
Osgoode	516 00
Torbolton	113 00
Total	$3,005 00

4. COUNTY OF DUFFERIN.

Amaranth	$323 00
Garafraxa, East	225 00
Luther, East	211 00
Melancthon	457 00
Mono	424 00
Mulmur	336 00
Total	$1,976 00

5. COUNTY OF ELGIN.

Aldborough	$416 00
Bayham	432 00
Dorchester, South	154 00
Dunwich	371 00
Malahide	438 00
Southwold	469 00
Yarmouth	574 00
Total	$2,854 00

6. COUNTY OF ESSEX.

Anderdon	$167 00
Colchester, North	225 00
" South	342 00
Gosfield, North	242 00
" South	266 00
Maidstone	304 00
Malden	110 00
Mersea	507 00
Pelee Island	76 00
Rochester	164 00
Sandwich, East	91 00
" West	274 00
" South	200 00
Tilbury, North	113 00
" West	270 00
Total	$3,351 00

7. COUNTY OF FRONTENAC.

Municipalities.	Apportionment.
Barrie	$64 00
Bedford	179 00
Clarendon and Miller	78 00
Hinchinbrooke	154 00
Howe Island	
Kennebec	154 00
Kingston	269 00
Loughborough	180 00
Olden	126 00
Oso	50 00
Palmerston and Canonto	103 00
Pittsburg	263 00
Portland	257 00
Storrington	222 00
Wolfe Island	109 00
Total	$2,208 00

8. COUNTY OF GREY.

Artemesia	$ 434 00
Bentinck	366 00
Collingwood	443 00
Derby	216 00
Egremont	383 00
Euphrasia	384 00
Glenelg	284 00
Holland	365 00
Keppel	424 00
Normanby	498 00
Osprey	380 00
Proton	354 00
Sarawak	153 00
St. Vincent	345 00
Sullivan	404 00
Sydenham	386 00
Total	$5,819 00

9. COUNTY OF HALDIMAND.

Canborough	$ 103 00
Cayuga, North	180 00
" South	97 00
Dunn	99 00
Moulton	223 00
Oneida	167 00
Rainham	204 00
Seneca	215 00
Sherbrooke	48 00
Walpole	502 00
Total	$1,838 00

10. COUNTY OF HALIBURTON.

Anson and Hindon	$ 32 00
Cardiff	71 00
Dudley, Dysart, Harcourt, Harburn, Guilford	121 00
Glamorgan	63 00
Livingstone	5 00
Lutterworth	55 00
McClintock	6 00
Minden	148 00
Monmouth	63 00
Nightingale	1 00
Sherbourne	17 00
Snowdon	97 00
Stanhope	53 00
Total	$ 732 00

11. COUNTY OF HALTON.

Municipalities.	Apportionment.
Esquesing	$ 433 00
Nassagaweya	277 00
Nelson	328 00
Trafalgar	412 00
Total	$1,450 00

12. COUNTY OF HASTINGS.

Carlow	$ 72 00
Dungannon	92 00
Elzevir and Grimsthorpe	158 00
Faraday	153 00
Hungerford	427 00
Huntingdon	289 00
McClure, Wicklow and Bangor	117 00
Herschel and Monteagle	239 00
Madoc	272 00
Marmora and Lake	191 00
Mayo	62 00
Rawdon	403 00
Sidney	473 00
Thurlow	475 00
Tudor and Cashel	105 00
Limerick	65 00
Wollaston	90 00
Tyendinaga	346 00
Total	$4,029 00

13. COUNTY OF HURON.

Ashfield	$355 00
Colborne	214 00
Goderich	293 00
Grey	408 00
Hay	388 00
Howick	468 00
Hullett	315 00
McKillop	302 00
Morris	301 00
Stanley	261 00
Stephen	467 00
Tuckersmith	286 00
Turnberry	257 00
Usborne	293 00
Wawanosh, East	229 00
" West	236 00
Total	$5,073 00

14. COUNTY OF KENT.

Camden	$311 00
Chatham	579 00
Dover	407 00
Harwich	529 00
Howard	421 00
Orford	319 00
Raleigh	508 00
Romney	214 00
Tilbury, East	410 00
Zone	148 00
Total	$3,846 00

15. COUNTY OF LAMBTON.

Bosanquet	$304 00
Brooke	400 00
Dawn	414 00
Enniskillen	563 00
Euphemia	270 00
Moore	554 00
Plympton	396 00

15. COUNTY OF LAMBTON.—*Con.*

Municipalities.	Apportionment.
Sarnia	$225 00
Sombra	457 00
Warwick	376 00
Total	$3,959 00

16. COUNTY OF LANARK.

Bathurst	$290 00
Beckwith	197 00
Burgess, North	53 00
Dalhousie and Sherbrooke, N'th	210 00
Darling	87 00
Drummond	234 00
Elmsley, North	123 00
Lanark	203 00
Lavant	64 00
Montague	224 00
Packenham	193 00
Ramsay	256 00
Sherbrooke, South	104 00
Total	$2,238 00

17. COUNTY OF LEEDS.

Bastard and Burgess, South	$333 00
Crosby, North	145 00
" South	194 00
Elizabethtown	471 00
Elmsley, South	101 00
Kitley	237 00
Leeds and Lansdowne, Front	331 00
" " Rear	275 00
Yonge and Escott, Rear	124 00
Yonge, Front and Escott	287 00
Total	$2,498 00

17 (a). COUNTY OF GRENVILLE.

Augusta	$445 00
Edwardsburg	439 00
Gower, South	98 00
Oxford, Rideau	329 00
Wolford	200 00
Total	$1,511 00

18. COUNTY OF LENNOX AND ADDINGTON.

Adolphustown	$ 59 00
Amherst Island	101 00
Anglesea, Effingham & Kaladar	152 00
Camden, East	649 00
Denbigh, Abinger and Ashley	123 00
Ernesttown	366 00
Fredericksburg North	170 000
" South	94 00
Richmond	262 00
Sheffield	217 00
Total	$2,193 00

19. COUNTY OF LINCOLN.

Caistor	$208 00
Clinton	230 00
Gainsborough	274 00
Grantham	221 00
Grimsby, North	143 00
" South	179 00
Louth	207 00
Niagara	207 00
Total	$1,669 00

20. COUNTY OF MIDDLESEX.

Municipalities.	Apportionment.
Adelaide	$262 00
Biddulph	201 00
Caradoc	481 00
Delaware	195 00
Dorchester, North	429 00
Ekfrid	323 00
Lobo	328 00
London	1,038 00
McGillivray	273 00
Metcalfe	185 00
Mosa	309 00
Nissouri, West	319 00
Westminster	504 00
Williams, East	179 00
" West	164 00
Total	$5,190 00

21. COUNTY OF NORFOLK.

Charlotteville	$395 00
Houghton	239 00
Middleton	303 00
Townsend	476 00
Walsingham, North	255 00
" South	244 00
Windham	408 00
Woodhouse	244 00
Total	$2,564 00

22. COUNTY OF NORTHUMBERLAND.

Alnwick	$121 00
Brighton	283 00
Cramahe	295 00
Haldimand	429 00
Hamilton	458 00
Monaghan, South	104 00
Murray	331 00
Percy	338 00
Seymour	366 00
Total	$2,725 00

22. (a). COUNTY OF DURHAM.

Cartwright	$208 00
Cavan	295 00
Clarke	441 00
Darlington	482 00
Hope	396 00
Manvers	359 00
Total	$2,181 00

23. COUNTY OF ONTARIO.

Brock	$438 00
Mara	287 00
Pickering	636 00
Rama	145 00
Reach	425 00
Scott	258 00
Scugog Island	58 00
Thorah	157 00
Uxbridge	329 00
Whitby, East	304 00
Whitby	252 00
Total	$3,289 00

24. COUNTY OF OXFORD.

Municipalities.	Apportionment.
Blandford	$195 00
Blenheim	511 00
Dereham	437 00
Nissouri, East	290 00
Norwich, North	267 00
" South	291 00
Oxford, North	155 00
" East	235 00
" West	251 00
Zorra, East	476 00
" West	394 00
Total	$3,502 00

25. COUNTY OF PEEL.

Albion	$327 00
Caledon	473 00
Chinguacousy	470 00
Gore of Toronto	101 00
Toronto	621 00
Total	$1,992 00

26. COUNTY OF PERTH.

Blanchard	$307 00
Downie	297 00
Easthope, North	246 00
" South	229 00
Ellice	321 00
Elma	439 00
Fullarton	262 00
Hibbert	245 00
Logan	338 00
Mornington	335 00
Wallace	339 00
Total	$3,358 00

27. COUNTY OF PETERBOROUGH.

Anstruther	$ 29 00
Asphodel	201 00
Belmont	212 00
Burleigh	44 00
Cavendish	19 00
Chandos	95 00
Douro	247 00
Dummer	229 00
Ennismore	98 00
Galway	118 00
Harvey	134 00
Methuen	30 00
Monaghan, North	111 00
Otonabee	396 00
Smith	315 00
Total	$2,278 00

28. COUNTY OF PRESCOTT.

Alfred	$38 00
Caledonia	112 00
Hawkesbury, East	302 00
" West	321 00
Longueuil	64 00
Plantagenet, North	365 00
" South	223 00
Total	$1,425 00

28 (a). COUNTY OF RUSSELL.

Municipalities.	Apportionment.
Cambridge	$170 00
Clarence	156 00
Cumberland	309 00
Russell	158 00
Total	$793 00

29. COUNTY OF PRINCE EDWARD.

Ameliasburg	$354 00
Athol	135 00
Hallowell	343 00
Hillier	183 00
Marysburg, North	135 00
Marysburg, South	144 00
Sophiasburg	211 00
Total	$1,505 00

30. COUNTY OF RENFREW.

Admaston	$254 00
Algona, South	115 00
Alice and Fraser	241 00
Bagot and Blithfield	170 00
Brougham	56 00
Bromley	150 00
Brudenell and Lynedoch	173 00
Grattan	243 00
Griffith and Matawatchan	51 00
Hagarty, Jones, Sherwood, Richards and Burns	242 00
Head, Clara and Maria	45 00
Horton	160 00
McNab	420 00
Pembroke	76 00
Petewawa	121 00
Radcliffe and Raglan	145 00
Rolph, Wylie, McKay, Buchanan	126 00
Ross	275 00
Sebastopol	88 00
Stafford	103 00
Westmeath	417 00
Wilberforce and Algona, N'th	285 00
Total	$3,956 00

31. COUNTY OF SIMCOE.

Adjala	$232 00
Essa	506 00
Flos	409 00
Gwillimbury, West	268 00
Innisfil	430 00
Matchedash	54 00
Medonte	478 00
Nottawasaga	641 00
Orillia	447 00
Oro	473 00
Sunnidale	236 00
Tay	554 00
Tiny	374 00
Tecumseth	389 00
Tossorontio	190 00
Vespra	347 00
Total	$6,028 00

32. COUNTY OF STORMONT.

Cornwall	$612 00
Finch	315 00

32. COUNTY OF STORMONT.—*Con.*

Municipalities.	Apportionment.
Osnabruck	$551 00
Roxborough	433 00
Total	$1,911 00

32 (a). COUNTY OF DUNDAS.

Matilda	$468 00
Mountain	358 00
Williamsburg	450 00
Winchester	390 00
Total	$1,666 00

32 (b). COUNTY OF GLENGARRY.

Charlottenburg	$534 00
Kenyon	495 00
Lancaster	411 00
Lochiel	466 00
Total	$1,906 00

33. COUNTY OF VICTORIA.

Bexley	$106 00
Carden	84 00
Dalton	62 00
Eldon	360 00
Emily	236 00
Fenelon	271 00
Laxton, Digby and Longford	90 00
Mariposa	463 00
Ops	265 00
Somerville	230 00
Verulam	220 00
Total	$2,387 00

34. COUNTY OF WATERLOO.

Dumfries, North	$243 00
Waterloo	802 00
Wellesley	476 00
Wilmot	549 00
Woolwich	475 00
Total	$2,545 00

35. COUNTY OF WELLAND.

Bertie	$353 00
Crowland	109 00
Humberstone	350 00
Pelham	285 00
Stamford	230 00
Thorold	242 00
Wainfleet	306 00
Willoughby	113 00
Total	$1,988 00

36. COUNTY OF WELLINGTON

Arthur	$285 00
Eramosa	313 00
Erin	411 00
Garafraxa, West	281 00
Guelph	273 00
Luther, West	252 00
Maryborough	366 00
Minto	365 00
Nichol	190 00
Peel	441 00
Pilkington	165 00
Puslinch	334 00
Total	$3,676 00

37. COUNTY OF WENTWORTH.

Municipalities.	Apportionment.
Ancaster	$471 00
Barton	438 00
Beverly	492 00
Binbrook	169 00
Flamborough, East	298 00
" West	333 00
Glanford	192 00
Saltfleet	362 00
Total	$2,755 000

38. COUNTY OF YORK.

Etobicoke	$425 00
Georgina	199 00
Gwillimbury, East	386 00
" North	152 00
King	625 00

38. COUNTY OF YORK.—*Con.*

Municipalities.	Apportionment.
Markham	$575 00
Scarborough	438 00
Vaughan	515 00
Whitchurch	422 00
York	1,060 00
Total	$4,797 00

39. DISTRICTS

Algoma, Muskoka, Nipissing, Parry Sound, Rainy River, and Thunder Bay, including rural separate schools, but not schools in towns and villages named in this list.	$35,000 00
Total	$35,000 00

Apportionment to Roman Catholic Separate Schools for 1902, Payable Through This Department.

School Sections.		Apportionment.
Adjala	10	$23 00
Alfred	3	13 00
"	6	27 00
" 7 (with 8, Plantagenet, S'th)		13 00
"	7	33 00
"	8	42 00
"	9	24 00
"	10	67 00
"	11	23 00
"	12	26 00
"	13	29 00
"	14	20 00
"	15	20 00
Admaston	4	20 00
Anderdon, 2, 5 and 8 (with 6 and 9 Sandwich W.)		28 00
" 3 and 4		11 00
Arthur	6	29 00
"	10	31 00
Ashfield	2	46 00
Asphodel	4	15 00
Augusta	15	18 00
Balfour, 1 (District of Algoma)		
Biddulph	3	13 00
"	4	35 00
"	6	27 00
" 9 (with 1 McGillivray)		11 00
Bonfield, 1A, 1B, 2, 4 (District of Nipissing)		
Brant (with 3 Greenock)	2	8 00
Brighton	1 (15)	14 00
Bromley	4	24 00
"	6	24 00
"	7	46 00
Brougham	1	13 00
Burgess, North	2	27 00
"	4	11 00
"	6	10 00
Caledonia	3, 4 and 10	15 00
" 6 (with 7 Plantagenet S.)		13 00
"	10	22 00
"	12	27 00
"	13	13 00
Cambridge	3	28 00
Cambridge	4	$19 00
"	5	36 00
"	6	23 00
" 6 and 7		36 00
" 14 P (to be app'd)		
Carrick	1	33 00
" (with 1 Culross)	1	65 00
"	2	18 00
" (with 2 Culross)	2	16 00
"	4	29 00
"	14	111 00
Charlottenburg	15	38 00
"	16	25 00
Chisholm and Boulter	1	(Nipissing)
Chisholm	2	"
Clarence	5	70 00
"	6	62 00
"	8	34 00
"	11	29 00
"	12	17 00
"	13	21 00
"	14	26 00
"	16	21 00
"	17	21 00
"	19	16 00
"	20	21 00
"	21	29 00
Cornwall	1	17 00
"	16	53 00
Crosby, North	4	70 00
"	7	5 00
Culross (with 1 Carrick)	1	79 00
" (with 2 Carrick)	2	20 00
Cumberland	10	13 00
"	11	15 00
"	13	25 00
"	14	33 00
Dilke, 6 (District of Algoma)		
Downie	9	33 00
Dover	3	45 00
"	7	34 00
"	9	28 00
Dunnett and Rutter, 1 (District of Nipissing		

APPORTIONMENT TO ROMAN CATHOLIC SEPARATE SCHOOLS FOR 1902, PAYABLE THROUGH THIS DEPARTMENT.—*Continued.*

School Sections.		Apportionment.
Edwardsburg	2	$ 4 00
Ellice	7	16 00
Ferris, 3 (District of Nipissing)		
" 4 " "		
Finch	5	44 00
Flamborough, West	2	14 00
Gibbons, 1 (District of Nipissing)		
Greenock..3 (with 2 Brant)		68 00
Glenelg	5	18 00
"	7	30 00
Gloucester.....1 (with 3 Osgoode)		9 00
" ....4, 5 and 12		12 00
"	14	35 00
"	15	68 00
"	17	8 00
"	20	24 00
"	22	15 00
"	25	80 00
"	26	20 00
Griffith, etc	3	11 00
Hagarty	4	45 00
"	12 (to be app'd)	
Haldimand	2	24 00
"	14	18 00
Harwich	9	25 00
Hawkesbury, East	2	62 99
"	4	13 00
"	6	16 00
"	7	84 00
"	10	49 00
Hawkesbury, East	11	24 00
"	12	18 00
"	15	21 00
"	16	8 00
Hay	1	51 00
Hibbert, 2 (with McKillop, etc.)		
	(to be app'd)	
" (1)	3	16 00
Howe Island	1	10 00
"	2	16 00
"	3	14 00
Holland, etc	3	13 00
Hullett	2	14 00
Keewatin, 1 (see Dist. of Algoma)		
Kingston	8	15 00
Lancaster	14	35 00
Lochiel	12A	25 00
"	12B	55 00
Longueuil, West	2	17 00
"	4A	20 00
"	7	21 00
Loughboro'	2	14 00
"	10	20 00
Maidstone	1	49 00
" 4 (with 2 Rochester)		15 00
Malden	3A	33 00
"	3B	24 00
Mara	3	59 00
March	3	29 00
Marmora and Lake	1	2 00
Matawatchan	3	26 00
Moore, ..3, 4 and 5		9 00
Mornington	4	26 00
McGillivray, 1 (with 9 Biddulph)		8 00

School Sections.		Apportionment.
McKillop	1	$17 00
" 3 (with Hibbert) (to be app'd)		
Nepean	7	30 00
"	15	86 00
Nichol	1	16 00
Normanby	5	25 00
"	10	14 00
Osgoode	1	22 00
"	2 (15)	18 00
" ...3 (with 1 Gloucester)		11 00
Papineau, 1 (see Dist of Nipissing)		
" 2 " "		
" 2B " "		
Peel	8	13 00
"	12	15 00
Percy	5	12 00
" ....12 (with 12 Seymour)		5 00
Plantagenet, North	4	22 00
" "	7	21 00
" "	8	15 00
" "	9	24 00
" "	12	10 00
" South	4	37 00
" "	7	36 00
" "7 (w'th 6 Caledonia)		12 00
Plantagenet, South	8	23 00
" "8 (with 7 Alfred)		9 00
Proton	6	15 00
Raleigh	4	10 00
"	5	23 00
"	6	20 00
Rayside, 1 (with 1 Balfour) Algoma		
Richmond ..10 and 17		14 00
Rochester 2 (with 4 Maidstone)		25 00
"	3 (to be app'd)	
"	6	48 00
"	7	57 00
" 10 (with 11 Tilbury, N.)		9 00
Roxboro'	12	62 00
"	16	26 00
Russell...1 (with 12 Winchester)		10 00
"	4	12 00
"	6	92 00
"	7	20 00
"	8	33 00
"	13	19 00
Sandwich, East	1	100 00
"	2	18 00
"	3	16 00
"	4	78 00
" West	1 (to be app'd)	
"	6 and 9	28 00
" South	5 (to be app'd)	
"	7	"
Seymour .12 (with 12 Percy)		5 00
Sheffield	5	30 00
Sherwood	6	58 00
Sombra	5	26 00
Stafford	2	31 00
Stephen	6	38 00
Springer, 2 (District of Nipissing		
" 3 " "		

APPORTIONMENT TO ROMAN CATHOLIC SEPARATE SCHOOLS FOR 1902, PAYABLE THROUGH THIS DEPARTMENT.—*Concluded.*

School Sections.	Apportionment.	
Sunnidale	6	$ 7 00
Sydenham	7	19 00
Tilbury, N.	1	52 00
"	2	38 00
"	6	23 00
"	7 (to be app'd)	
"	11 (with 10 Rochester)	24 00
" West	11 (to be app'd)	
Tiny	2	101 00
Toronto Gore	6	16 00
Tyendinaga	18	12 00
"	20	17 00
"	24	14 00
"	28	13 00
"	30	14 00
Vespra	7	7 00
Waterloo	13	60 00
Wawanosh, West	1	18 00
Wellesley	5	$14 00
"	9 and 10	32 00
"	11	76 00
"	12	5 00
Westminster	13	6 00
Widdifield, 2 (District of Nipissing)		
Williams, West	10	21 00
Wilmot	15½	54 00
Winchester...12 (with 1 Russell)		15 00
Windham	8	37 00
Wolfe Island	1	7 00
Wolfe Island	2	17 00
"	4	28 00
"	7	12 00
Woolwich	10	37 00
Yonge and Escott R.	4	15 00
York	1	34 00
		$6,005 00

APPORTIONMENT TO CITIES, TOWNS AND VILLAGES FOR 1902.

CITIES.	Public Schools.	Separate Schools.	Total.
	$ c.	$ c.	$ c.
Bellville	946 00	268 00	1,214 00
Brantford	1,793 00	243 90	2,036 00
Chatham	872 00	184 00	1,056 00
Guelph	1,088 00	265 00	1,353 00
Hamilton	5,507 00	1,054 00	6,561 00
Kingston	1,739 00	477 00	2,216 00
London	4,142 00	639 00	4,781 00
Ottawa	3,504 00	3,936 00	7,440 00
St. Catharines	1,046 00	246 00	1,292 00
St. Thomas	1,271 00	157 00	1,428 00
Stratford	1,059 00	216 00	1,275 00
Toronto	21,714 00	3,404 00	25,118 00
Windsor	1,542 00	in City grant	1,542 00
Woodstock	1,129 00		1,129 00
Total	$47,352 00	$11,089 00	$58,441 00
TOWNS.			
Alliston	168 00		168 00
Almonte	270 00	101 00	371 00
Amherstburg	129 00	130 00	259 00
Arnprior	293 00	175 00	468 00
Aurora	179 00		179 00
Aylmer	266 00		266 00
Barrie	624 00	115 00	739 00
Berlin	934 00	275 00	1,209 00
Blenheim	204 00		204 00
Bothwell	102 00		102 00
Bowmanville	333 00		333 00
Bracebridge	282 00		282 00
Brampton	343 00		343 00
Brockville (including arrears for Sep. School)	906 00	175 00	1,081 00
Carleton Place	497 00		497 00
Clinton	297 00		297 00
Cobourg	382 00	149 00	531 00
Collingwood	718 00		718 00
Copper Cliff	281 00		281 00
Cornwall	306 00	456 00	762 00
Deseronto	457 00		457 00

APPORTIONMENT TO CITIES, TOWNS AND VILLAGES FOR 1902.—*Con.*

TOWNS.—*Continued.*	Public Schools.	Separate Schools.	Total.
	$ c.	$ c.	$ c.
Dresden	184 00		184 00
Dundas	338 00	76 00	414 00
Dunnville	261 00		261 00
Durham	171 00		171 00
Essex	172 00		172 00
Forest	193 00		193 00
Fort William	500 00	in town grant	500 00
Galt	910 00	64 00	974 00
Gananoque	454 00		454 00
Goderich	438 00	57 00	495 00
Gore Bay	110 00		110 00
Gravenhurst	259 00		259 00
Harriston	204 00		204 00
Hawkesbury	50 00	209 00	259 00
Hespeler	312 00		312 00
Huntsville	273 00		273 00
Ingersoll	507 00	70 00	577 00
Kincardine	265 00		265 00
Kingsville	222 00		222 00
Leamington	291 00		291 00
Lindsay	648 00	198 00	846 00
Listowel	317 00		317 00
Little Current	113 00		113 00
Mattawa	55 00	153 00	208 00
Meaford	231 00		231 00
Midland	370 00		370 00
Mitchell	238 00		238 00
Milton	161 00		161 00
Mount Forest	251 00		251 00
Napanee	348 00		348 00
Newmarket	239 00	37 00	276 00
Niagara	150 00		150 00
Niagara Falls	455 00	94 00	549 00
North Bay	204 00	101 00	305 00
North Toronto	223 00		223 00
Oakville	187 00	21 00	208 00
Orangeville	500 00		500 00
Orillia	479 00	115 00	594 00
Oshawa	468 00	57 00	525 00
Owen Sound	1,057 00	72 00	1,129 00
Palmerston	218 00		218 00
Parkhill	139 00	32 00	171 00
Paris	348 00	51 00	399 00
Parry Sound	357 00		357 00
Pembroke	379 00	247 00	626 00
Penetanguishene	332 00		332 00
Perth	312 00	132 00	444 00
Peterborough	901 00	439 00	1,340 00
Petrolea	523 00		523 00
Picton	406 00	37 00	443 00
Port Arthur	245 00	142 00	387 00
Port Hope	499 00		499 00
Prescott	241 00	129 00	370 00
Rreston	225 00	49 00	274 00
Rat Portage	494 00	142 00	636 00
Renfrew	231 00	168 00	399 00
Ridgetown	304 00		304 00
Sandwich	57 00	117 00	174 00
Sarnia	826 00	118 00	944 00
Sault Ste. Marie	852 00	124 00	976 00
Seaforth	278 00	in town grant	278 00
Simcoe	367 00		367 00
Smith's Falls	661 00		661 00
Stayner	147 00		147 00
Sturgeon Falls	75 00	89 00	164 00
St. Mary's	379 00	37 00	416 00
Strathroy	372 00		372 00
Sudbury	110 00	76 00	186 00
Thessalon	139 00		139 00

APPORTIONMENT TO CITIES, TOWNS AND VILLAGES FOR 1902.—*Con.*

TOWNS.—*Con.*	Public Schools	Separate Schools.	Total.
	$ c.	$ c.	$ c.
Thornbury	93 00		92 00
Thorold	183 00	86 00	269 00
Tilsonburg	258 00		258 00
Toronto Junction	737 00		737 00
Trenton	354 00	149 00	503 00
Uxbridge	193 00		193 00
Vankleekhill	135 00	146 00	281 00
Walkerton	250 00	119 00	369 00
Walkerville	194 00		194 00
Wallaceburg	291 09	54 00	345 00
Waterloo	369 00	67 00	436 00
Welland	231 00		231 00
Whitby	242 00	31 00	273 00
Wiarton	279 00		279 00
Wingham	266 00		266 00
Totals	35,048 00	5,681 00	40,729 00
INCORPORATED VILLAGES.			
Acton	179 00		179 00
Ailsa Craig	88 00		88 00
Alexandria	43 00	168 00	211 00
Alvinston	122 00		122 00
Arkona	58 00		58 00
Arthur	92 00	64 00	156 00
Athens	118 00		118 00
Ayr	103 00		103 00
Ashburnham	209 00		209 00
Bath	42 00		42 00
Bayfield	69 00		69 00
Beamsville	98 00		98 00
Beaverton	91 00		91 00
Beeton	88 00		88 00
Belle River	12 00	57 00	69 00
Elyth	105 00		105 00
Bobcaygeon	109 00		109 00
Bolton	77 00		77 00
Bradford	122 00		122 00
Bridgeburg	161 00		161 00
Brighton	165 00		165 00
Brussels	142 00		142 00
Burk's Falls	93 00		93 00
Burlington	161 00		161 00
Caledonia	98 00		98 00
Campbellford	306 00		306 00
Cannington	152 00		152 00
Cardinal	157 00		157 00
Casselman	20 00	94 00	114 00
Cayuga	138 00		138 00
Chesley	215 00		215 00
Chesterville	108 00		108 00
Chippawa	56 00		56 00
Clifford	72 00		72 00
Cobden	90 00		90 00
Colborne	125 00		125 00
Creemore	79 00		79 00
Delhi	96 00		96 00
Drayton	93 00		93 00
Dundalk	96 00		96 00
Dutton	100 00		100 00
East Toronto	186 00		186 00
Eganville	62 00	67 00	129 00
Elmira	132 00		132 00
Elora	124 00	21 00	145 00
Embro	72 00		72 00
Erin	60 00		60 00
Exeter	231 00		231 00
Fenelon Falls	147 00		147 00

APPORTIONMENT TO CITIES, TOWNS AND VILLAGES FOR 1902.—*Con.*

INCORPORATED VILLAGES.—*Con.*	Public Schools.	Separate Schools.	Total.
	$ c.	$ c.	$ c.
Fergus	162 00	13 00	175 00
Fort Erie	100 00		100 00
Garden Island	31 00		31 00
Georgetown	163 00		163 00
Glencoe	116 00		116 00
Grand Valley	99 00		96 00
Grimsby	119 00		119 00
Hagersville	109 00		109 00
Hastings	60 00	38 00	98 00
Hanover	170 00		170 00
Havelock	119 00		119 00
Hensall	100 00		100 00
Hintonburg	160 00	157 00	317 00
Holland Landing	56 00		56 00
Iroquois	138 00		138 00
Kemptville	172 00		172 00
Lakefield	142 00		142 00
Lanark	110 00		110 00
Lancaster	65 00		65 00
L'Orignal	108 00	38 00	146 00
Lucan	105 00		105 00
Lucknow	181 00		181 00
Madoc	141 00		141 00
Markdale	125 00		125 00
Markham	136 00		136 00
Marmora	111 00		111 00
Maxville	85 00		85 00
Merrickville	118 00		118 00
Merritton	160 00	48 00	208 00
Millbrook	110 00		110 00
Milverton	85 00		85 00
Morrisburg	196 00		196 00
Newboro'	53 00		53 00
Newburgh	73 00		73 00
Newbury	54 00		54 00
Newcastle	74 00		74 00
New Hamburg	147 00		147 00
Niagara Falls South	163 00		163 00
Norwich	170 00		170 00
Norwood	112 00		112 00
Oil Springs	119 00		119 00
Omemee	74 00		74 00
Ottawa, East	81 00	78 00	159 00
Paisley	134 00		134 00
Point Edward	128 00		128 00
Portsmouth	47 00	25 00	72 00
Port Carling	34 00		34 00
Port Colborne	154 00		154 00
Port Dalhousie	90 00	39 00	129 00
Port Dover	140 00		140 00
Port Elgin	155 00		155 00
Port Perry	172 00		172 00
Port Rowan	88 00		88 00
Port Stanley	66 00		66 00
Richmond	54 00		54 00
Richmond Hill	72 00		72 00
Rockland	20 00	140 00	160 00
Shelburne	142 00		142 00
Southampton	198 00		198 00
Springfield	60 00		60 00
Stirling	98 00		98 00
Stouffville	147 00		147 00
Streetsville	65 00		65 00
Sundridge	49 00		49 00
Sutton	72 00		72 00
Tara	81 00		81 00
Teeswater	110 00		110 00
Thamesville	108 00		108 00
Thedford	73 00		73 00

APPORTIONMENT TO CITIES, TOWNS AND VILLAGES FOR 1902.—*Con.*

INCORPORATED VILLAGES.—*Con.*	Public Schools.	Separate Schools.	Total.
	$ c.	$ c.	$ c.
Tilbury	63 00	65 00	128 00
Tiverton	54 00		54 00
Tottenham	69 00		69 00
Tweed	148 00		148 00
Vienna	41 00		41 00
Wardsville	41 00		41 00
Waterdown	82 00		82 00
Waterford	127 00		127 00
Watford	168 00		168 00
Wellington	91 00		91 00
Weston	117 00	14 00	131 00
Winchester	138 00		138 00
Woodbridge	76 00		76 00
Woodville	63 00		63 00
Wyoming	89 00		89 00
Wroxter	53 00		53 00
Total	$14,508 00	$1,126 00	$15,634 00

SUMMARY OF APPORTIONMENT FOR 1902.

COUNTIES.	Public Schools.	Separate Schools.	Total.
	$ c.	$ c.	$ c.
1. Brant	1,667 00		1,667 00
2. Bruce	4,331 00	447 00	4,778 00
3. Carleton	3,005 00	467 00	3,472 00
4. Dufferin	1,976 00		1,976 00
5. Elgin	2,854 00		2,854 00
6. Essex	3,351 00	676 00	4,027 00
7. Frontenac	2,208 00	153 00	2,361 00
8. Grey	5,819 00	134 00	5,953 00
9. Haldimand	1,838 00		1,838 00
10. Haliburton	732 00		732 00
11. Halton	1,450 00		1,450 00
12. Hastings	4,029 00	72 00	4,101 00
13. Huron	5,073 00	184 00	5,257 00
14. Kent	3,846 00	185 00	4,031 00
15. Lambton	3,959 00	35 00	3,994 00
16. Lanark	2,238 00	48 00	2,286 00
17. Leeds and Grenville	4,009 00	112 00	4,121 00
18. Lennox and Addington	2,193 00	44 00	2,237 00
19. Lincoln	1,669 00		1,669 00
20. Middlesex	5,190 00	121 00	5,311 00
21. Norfolk	2,564 00	37 00	2,601 00
22. Northumberland and Durham	4 906 00	78 00	4,984 00
23. Ontario	3,289 00	59 00	3,348 00
24. Oxford	3,502 00		3,502 00
25 Peel	1,992 00	16 00	2,008 00
26. Perth	3,358 00	91 00	3,449 00
27. Peterborough	2,278 00	15 00	2,293 00
28. Prescott and Russell	2,218 00	1,770 00	3,988 00
29. Prince Edward	1,505 00		1,505 00
30. Renfrew	3 956 00	298 00	4 254 00
31. Simcoe	6,028 00	138 00	6,166 00
32. Stormont, Dundas and Glengarry	5,483 00	395 00	5,878
33. Victoria	2,387 00		2,387
34. Waterloo	2,545 00	278 00	2,823 00
35. Welland	1,988 00		1,988
36. Wellington	3,676 00	104 00	3,780 00
37. Wentworth	2,755 00	14 00	2,769 00
38. York	4,797 00	34 00	4,831 00
Total	120.664 00	6,005 00	126,699 00

SUMMARY OF APPORTIONMENT FOR 1902.—*Con.*

	Public Schools.	Separate Schools.	Total.
	$ c.	$ c.	$ c.
39. Districts— (*a*) Algoma..... (*b*) Muskoka (*c*) Nipissing .... (*d*) Parry Sound.. (*e*) Rainy River.. (*f*) Thunder Bay. — Exclusive of the towns and villages which appear in the general list.	33,800 00	1,200 00	35,000 00
Total.....	33,800 00	1,200 00	35,000 00
GRAND TOTALS.			
Counties	120,664 00	6,005 00	126,669 00
Cities	47,352 00	11,089 00	58,441 00
Towns	35,048 00	5,681 00	40,729 00
Villages	14,508 00	1,126 00	15,634 00
Districts	33,800 00	1,200 00	35,000 00
Totals	251,372 00	25,101 00	276,473 00

II. ORDERS IN COUNCIL.

1. High School established in the town of Rat Portage. Such establishment to take effect from the 1st day of January, 1902. (Approved 24th Jan. 1902).

2. High School of the town of Renfrew raised to the status of a Collegate Institute. To date from the first day of January, 1902. (Approved 22nd Feb., 1902).

3. Miss M. E. Butterworth appointed first female teacher in the Girls' Model School, Ottawa, and Miss A. G. Hanahoe appointed one of the teachers in the same school. (Approved 21st March, 1902).

4. High School established in the town of North Bay. To date from the first day of January, 1902. (Approved 21st March, 1902).

5. High School established in the town of Sault Ste. Marie. To date from the first day of January, 1902. (Approved 18th April, 1902).

6. Mr. Edward J. McLaughlin appointed janitor of the Boys' Model School, Ottawa. (Approved 23rd April, 1902).

7. Miss D. Livingstone appointed teacher in domestic science for the Ottawa Normal School. (Approved 8th May, 1902).

8. Agreement with the George N. Morang Co., Limited, respecting the following books: "A Modern Pronic Primer," "Our Home and Its Surroundings, a first book of Geography" and "A Modern English Grammar." (Approved 15th May, 1902).

9. Miss Eleanor D. Odlum, B.A., granted the standing of a Specialist in Moderns and History on passing the requirements of the Normal College examination. (Approved 4th June, 1902).

10. Regulations pertaining to School Libraries. (Approved 16th July, 1902).

11. Agreement amending agreement approved 15th May, 1902, with George N. Morang & Co., Limited, respecting "Our Home and Its Surroundings, a first book of Geography." (Approved 25th July, 1902).

12. Agreement with the Hunter, Rose Co., Limited, respecting "The High School Euclid, Euclid's Elements, Books I., II., III.." by A. C. McKay, B.A., and R. A. Thompson, B.A. (Approved 7th August, 1902).

13. Mr. J. H. Putnam appointed Head Master and Mr. F. A. Jones appointed as assistant teacher (subject to two years' successful teaching) in the Model School, Ottawa. (Approved 14th Aug., 1902).

14. High School of the town of Toronto Junction raised to the status of a Collegiate Institute. (Approved 14th Aug., 1902).

15. Miss F. M. Taylor appointed assistant teacher in Provincial Model School, Toronto. To date from 1st September, 1902.

16. Text-books to be in circulation for at least six months before application for authorization. (Approved 11th Oct., 1902).

17. Albert H. Leake appointed Inspector of Technical Schools. (Approved 25th Oct., 1902).

18. Agreements with The Canada Publishing Co., Limited, The Copp, Clark Co., Limited, and The W. J. Gage Co., Limited, respectively, regarding "The Public School Phonic Primer, Canadian Edition." (Approved 12 Nov., 1902).

19. Mr. Jas. F. White, Inspector of Separate Schools, appointed Principal of the Normal School, Ottawa, such appointment to take effect from 1st January, 1903. (Approved 11th Dec., 1902).

20. Mr. John Francis Power, M.A., appointed one of the Inspectors of Separate Schools, his services to begin on 1st January, 1903. (Approved 11th Dec., 1902).

III. MINUTES OF THE DEPARTMENT.

1. James B. McDougall, B.A., granted a temporary certificate as Principal of the High School, North Bay, valid for two years. (Approved 6th May, 1902).

2. Leslie Arnold Green, B.A., granted a temporary certificate as Principal of the High School, Sault Ste. Marie, valid for two years. (Approved 3rd June, 1902).

3. Domestic Science certificates awarded. (Approved 26th Aug., 1902).

4. Domestic Science certificates awarded to candidates from Toronto Technical School. (Approved 9th Sept., 1902).

APPENDIX F.—TECHNICAL EDUCATION—PUBLIC AND FREE LIBRARIES, ART SCHOOLS, LITERARY AND SCIENTIFIC INSTITUTIONS, ETC.

Report of S. P. May, M.D., C.L.H., Superintendent of Public Libraries, Art Schools, Etc.

Sir,—I have the honor to submit herewith my report on the Public and Free Libraries, Art Schools, and Scientific Institutions receiving a share of the Government Grant, in the Province of Ontario:—

The change in the Act and Regulations requiring annual Reports from Public Libraries to be made up to the end of each calendar year has proved to be very satisfactory.

The present Report is for the year ending 31st December, 1901.

Since my last Report (1900) there has been a large increase in the number of Public Libraries entitled to claim a share of the Government grant, and although the Legislative appropriation was increased last year, it was necessary to take off a pro rata reduction of twenty per cent. from every library.

The Public Libraries now in operation are as follows:—

Public Libraries (free) which reported for 1901.....	132
*Public Libraries (not free) which reported for 1901.....	283
Public Libraries which did not report for 1901.....	27
Public Libraries incorporated in 1902 up to 1st December	35
Total number of Libraries up to 1st Dec., 1902.....	477

The total number of books issued from 415 Libraries was 2,668,361.

The following Public Libraries did not report: Alvinston, Athens, Bognor, Brougham, Cold Springs, Courtwright, Dawson, Delora, Enterprise, Forks of the Credit, Gore Bay, Hastings, Holland Centre, Horning's Mills, Kearney, King, Linwood, Mono Centre, Morewood, Pelee Island, Tamworth, Tilbury E., Tweed, Violet Hill, Webbwood, Winchester, Winchester Springs.—27.

The following Public Libraries have been incorporated since 1st January, 1902: Abingdon, Addison, Battersea, Burrit's Rapids, Cache Bay, Farran's Point, Forester's Falls, Glamis, Goulais Bay, Grantley, Harrowsmith, Havelock, Hillsdale, Honeywood, Inwood, Jasper, Jerseyville, Keswick, Lefroy, Lorne Park, Maitland, Marlbank, Moose Creek, Newboro', Norland, Orrville, Osnabruck Centre, Petrolea, Severn Bridge, Thornton, Victoria Mines, Vienna, Wolfe Island, Yarker.—35.

I inspected the following Public and Free Libraries during the year 1902: Alton, Alliston, Ancaster, Angus, Arthur, Auburn, Atwood, Avonmore, Badjeros, Barrie, Beeton, Belfountain, Berwick, Beachville, Beaverton, Bervie, Blenheim, Bloomsburg, Blyth, Bradford, Brussels, Brucefield, Brigden, Bunyan, Burnstown, Calabogie, Carleton Place, Cardinal, Canfield, Cayuga, Caledonia, Chesley, Cheltenham, Chatham, Chesterville, Clinton, Clifford, Claude, Clarksburg, Coldwater, Cookstown, Cornwall, Crysler, Dromore, Dundela, Dundas, Dundalk, Elmwood, Elmvale, Embro, Ethel, Feversham, Finch, Forest, Forks of the Credit, Fordwich, Flesherton, Georgetown,Goderich,Gorrie, Hamilton, Harriston, Harrow, Hanover, Hagersville, Holstein, Holywood, Holland Centre, Inglewood, Iroquois, Inkerman, Kemble, King, Kingston, Kirkfield, Kincardine, Lanark, Listowel, Lucknow, Lynden, Matilda, Mount Albert, Maple, Mount Brydges, Mount Forest, Meaford, Markdale, Maxwell, McDonald's Corners, Monckton, Morewood, Mildmay, Mississippi, Middleville, Midland, Morrisburg, Newington, New Lowell, New Hamburg, Orangeville, Orillia, Owen Sound, Ottawa, Paisley, Palmerston, Penetang, Port Dover, Port Elgin, Point Edward, Primrose, Princeton, Renfrew, Richmond Hill, Ripley, Riversdale, Rosemont, Seaforth, St. Helen's, St. Thomas, Streetsville, Stouffville, Stratford, Sarnia, Simcoe, Smith's Falls, Smithville, Stayner, Shakespeare, Southampton, Stoney Creek, Tavistock, Thornhill, Tilsonburg, Teeswater, Thornbury, Tottenham, Uxbridge, Violet Hill, Walton, Walkerton, Winchester, Wingham, Woodville, Wroxeter, York, Zephyr.

I found a great improvement in many of the Libraries I inspected. The members of Library Boards are, as a rule, painstaking and careful in selecting new books, and are desirous to conform with the regulations of the Department. The Readers' Card system, which I introduced for boys and girls about three years ago, is becoming quite popular and successful. These cards, for the use of from 10 to 25 books, are sold at 5 cts. and 10 cts. each. The parents or the teachers being responsible for the return of the books. In a few Libraries they have done away with membership fees, as they get a larger revenue from the sale of Readers' Cards, and, of course, issue a much larger number of books.

*Ottawa Public Library has since been closed.

I always endeavor to show representatives of Libraries when I meet them the importance of educating our young people after they leave school by providing them with books which will give them information on subjects appertaining to the trades or professions they intend taking up in after life.

Several new Library buildings are being erected in different parts of the Province with funds given by Mr. Carnegie. It will be remembered that every municipal council applying for a donation from Mr. Carnegie is compelled to pass a resolution that the city, town, or village will expend annually for maintenance a sum equal to ten per cent. of his donation. In many quarters the view prevails that a preferable plan would be for municipal councils to raise money for Public Library buildings by debentures, so that the municipality would own its own buildings.

I also visited or met representatives of the following Art Schools, Scientific Institutes, etc., during the year: Hamilton Art School, Kingston Art School, London Art School, Ottawa Art School, St. Thomas Art School, Hamilton Literary and Scientific Society, Ottawa Field Naturalists' Club, Ottawa French-Canadian Scientific Society, Ottawa St. Patrick's Literary Association, Ottawa Literary and Scientific Association, Ottawa University Scientific Society.

London and Ottawa Art Schools are temporarily closed. For information on Art Schools and Scientific Institutions, see separate Reports under their respective headings.

The following table shows the locality of every Public and Free Library in the Province up to the 1st December, 1902.

FREE AND PUBLIC LIBRARIES.

Counties and Districts.	Cities, Towns and Villages.	Counties and Districts.	Cities, Towns and Villages.
Addington	Camden, East.	Bruce	Hepworth.
"	Enterprise.	"	Holyrood.
"	Napanee Mills (Strathcona PO)	"	Kincardine.
"	Newburgh.	"	Lion's Head.
"	Tamworth.	"	Lucknow.
"	Yarker.	"	Mildmay.
Algoma	Bruce Mines.	"	Paisley.
"	Chapleau.	"	Pinkerton.
"	Goulais Bay.	"	Port Elgin.
"	Marksville.	"	Ripley.
"	Nairn Centre.	"	Riversdale.
"	Ophir.	"	Southampton.
"	Port Arthur.	"	Teeswater.
"	Rat Portage.	"	Tara.
"	Sault Ste. Marie.	"	Tiverton.
"	Schreiber.	"	Urderwood.
"	Thessalon.	"	Walkerton.
"	Victoria Mines.	"	Westwood.
"	Webbwood.	"	Wiarton.
Brant	Brantford.	Carleton	Carp.
"	Burford.	"	Dawson.
"	Glenmorris.	"	Kars.
"	New Durham.	"	Kinburn.
"	Paris.	"	Manotick.
"	Scotland.	"	Metcalfe.
"	St. George.	"	Munster.
Bruce	Bervie.	"	North Gower.
"	Cargill.	"	*Ottawa.
"	Chesley.	"	Richmond.
"	Elmwood.	Dufferin	Grand Valley.
"	Glamis.	"	Honeywood.

* A public library was incorporated in Ottawa in 1901, but it was subsequently closed.

FREE AND PUBLIC LIBRARIES.—*Continued.*

Counties and Districts.	Cities, Towns and Villages.
Dufferin	Horning's Mills.
"	Melancthon.
"	Mono Centre.
"	Orangeville.
"	Primrose.
"	Rosemont.
"	Shelburne.
"	Violet Hill.
Dundas	Chesterville.
"	Dundela.
"	Grantley.
"	Inkerman.
"	Iroquois
"	Matilda (Iroquois P.O.)
"	Morewood.
"	Morrisburg.
"	Winchester.
"	Winchester Springs.
Durham	Bowmanville.
"	Millbrook.
"	Orono.
"	Port Hope.
Elgin	Aylmer.
"	Bayham.
"	Dutton.
"	Port Burwell.
"	Port Stanley.
"	Rodney.
"	St. Thomas.
"	Shedden.
"	Sparta.
"	Springfield.
"	Vienna.
"	West Lorne.
Essex	Amherstburg.
"	Comber.
"	Essex.
"	Harrow.
"	Kingsville.
"	Leamington.
"	Pelee Island.
"	Windsor.
Frontenac	Battersea.
"	Garden Island.
"	Harrowsmith.
"	Kingston.
"	Mississippi
"	Wolfe Island.
Glengarry	Lancaster.
"	Williamstown.
Grenville	Algonquin.
"	Burritt's Rapids.
"	Cardinal.
"	Easton's Corners.
"	Jasper.
"	Kemptville.
"	Maitland.
"	Merrickville.
"	North Augusta.
"	Oxford Mills.
"	Prescott.
"	Spencerville.
Grey	Badjeros.
"	Bognor.
"	Chatsworth.
"	Clarksburg.
"	Dromore.
"	Durham.
"	Dundalk.
"	Flesherton.
"	Holland Centre.
"	Holstein.

Counties and Districts.	Cities, Towns and Villages.
Grey	Kemble.
"	Hanover.
"	Lake Charles.
"	Markdale.
"	Meaford.
"	Maxwell and Feversham.
"	Owen Sound.
"	Shallow Lake.
"	Thornbury.
Haliburton	Haliburton.
"	Minden.
Haldimand	Caledonia.
"	Canfield.
"	Cayuga.
"	Cheapside.
"	Dufferin (Clanbrassil P.O.)
"	Dunnville.
"	Hagersville.
"	Jarvis.
"	Nanticoke.
"	Victoria (Caledonia P.O.)
"	York.
Halton,	Acton.
"	Burlington.
"	Georgetown.
"	Milton.
"	Oakville.
Hastings	Bancroft.
"	Belleville.
"	Delora.
"	Deseronto.
"	Madoc.
"	Marlbank.
"	Trenton.
"	Tweed.
Huron	Auburn.
"	Brucefield.
"	Blyth.
"	Brussels.
"	Clinton.
"	Dungannon.
"	Ethel.
"	Exeter.
"	Fordwich.
"	Goderich.
"	Gorrie.
"	Hensall.
"	Molesworth.
"	Seaforth.
"	St. Helens.
"	Walton.
"	Wingham.
"	Wroxeter.
Kent	Blenheim.
"	Bothwell.
"	Chatham.
"	Dresden.
"	Duart
"	Highgate.
"	Tilbury.
"	Tilbury E. (Valetta P.O,)
"	Ridgetown.
"	Romney.
"	Thamesville.
"	Wallaceburg.
"	Wheatley.
Lambton	Arkona.
"	Aberarder.
"	Alvinston.
"	Brigden.
"	Bunyan.
"	Copleston.

FREE AND PUBLIC LIBRARIES.—*Continued*

Counties and Districts.	Cities, Towns and Villages.
Lambton	Courtwright.
"	Forest.
"	Inwood.
"	Oil Springs.
"	Petrolea.
"	Point Edward.
"	Sarnia.
"	Thedford.
"	Watford.
"	Wyoming.
Lanark	Allan's Mills.
"	Almonte.
"	Carleton Place.
"	Dalhousie.
"	Lanark.
"	Middleville.
"	Pakenham.
"	Perth.
"	Smith's Falls.
Leeds	Addison.
"	Athens.
"	Brockville.
"	Gananoque.
"	Mallorytown.
"	Newboro'
Lennox	Odessa.
"	Napanee.
Lincoln	Abingdon.
"	Beamsville.
"	Caistorville.
"	Grantham (St Catharines P.O.)
"	Merritton.
"	Grimsby.
"	Niagara.
"	Smithville.
"	St. Catharines.
Manitoulin I.	Gore Bay.
"	Little Current.
"	Manitowaning.
Middlesex	Ailsa Craig.
"	Belmont.
"	Coldstream.
"	Dorchester.
"	Glencoe.
"	London.
"	Lucan.
"	Melbourne.
"	Mt. Bridges.
"	Newbury.
"	Parkhill.
"	Strathroy.
"	Wardsville.
Muskoka	Bracebridge.
"	Baysville.
"	Gravenhurst.
"	Huntsville
"	Port Carling.
"	Severn Bridge.
Nipissing	Copper Cliff.
"	Cache Bay.
"	Haileybury.
"	North Bay.
"	Thornloe.
Norfolk	Bloomsburg.
Norfolk	Delhi.
"	Port Dover.
"	Port Rowan.
"	Simcoe.
"	Waterford.
Northumberland	Brighton.
"	Campbellford.
"	Cobourg.
Northumberland	Cold Springs.
"	Colborne.
"	Fenella.
"	Gore's Landing.
"	Warkworth
Ontario	Beaverton.
"	Brooklin.
"	Brougham.
"	Cannington.
"	Claremont.
"	Oshawa.
"	Pickering.
"	Port Perry.
"	Sunderland.
"	Uxbridge.
"	Whitby.
"	Zephyr.
Oxford	Beachville.
"	Drumbo.
"	Embro
"	Harrington.
"	Ingersoll.
"	Kintore.
"	Plattsville.
"	Norwich.
"	Otterville.
"	Princeton.
"	Tavistock.
"	Tilsonburg.
"	Thamesford.
"	Woodstock.
Parry Sound	Burk's Falls.
"	Emsdale
"	Kearney.
"	Orrville.
"	Parry Sound.
"	Powassan.
"	Rosseau.
"	South River.
"	Sprucedale.
"	Sundridge.
"	Trout Creek.
Peel	Alton.
"	Belfountain.
"	Bolton.
"	Brampton.
"	Caledon.
"	Cheltenham.
"	Claude.
"	Forks of the Credit.
"	Inglewood.
"	Lorne Park.
"	Moro Road.
"	Mono Mills.
"	Port Credit.
"	Streetsville.
Perth	Atwood.
"	Listowel.
"	Milverton.
"	Monkton.
"	Mitchell.
"	Shakespeare.
"	St. Mary's.
"	Stratford.
Peterborough	Hastings.
"	Havelock.
"	Lakefield.
"	Norwood.
"	Peterborough.
Prescott	Vankleekhill.
Prince Edward I.	Bloomfield.
"	Picton.

FREE AND PUBLIC LIBRARIES.—*Concluded.*

Counties and Districts.	Cities, Towns and Villages.
Rainy River	Dryden.
"	Fort Francis.
Renfrew	Adamston.
"	Arnprior.
"	Burnstown.
"	Calabogie
"	Cobden.
"	Douglas.
"	Forester's Falls.
"	Pembroke.
"	Renfrew.
"	White Lake.
Russell	Russell.
"	Vars.
Stormont	Avonmore.
"	Berwick.
"	Cornwall.
"	Crysler.
"	Farran's Point.
"	Finch.
"	Moose Creek.
"	Newington.
"	Osnabruck Centre.
"	Wales.
Simcoe	Alliston.
"	Angus.
"	Barrie.
"	Beeton.
"	Bradford.
"	Coldwater.
"	Collingwood.
"	Cookstown.
"	Creemore.
"	Elmvale.
"	Hillsdale.
"	Lefroy.
"	Midland.
"	Orillia.
"	Penetanguishene.
"	Stayner.
"	Sunnidale (New Lowell P.O.)
"	Thornton.
"	Tottenham.
Victoria	Bobcaygeon.
"	Cambray.
"	Fenelon Falls.
"	Kinmount.
"	Kirkfield.
"	Little Britain.
"	Lindsay.
"	Manilla.
"	Norland.
"	Oakwood.
"	Omemee.
"	Woodville.
Waterloo	Ayr.
"	Baden.
"	Berlin.
"	Elmira.
"	Floradale.
Waterloo	Galt.
"	Hawkesville.
"	Hespeler.
"	Linwood.
Waterloo	New Dundee.
"	New Hamburg.
"	Preston.
"	Waterloo.
"	Wellesley.
Welland	Bridgeburg.
"	Fonthill.
"	Fort Erie.
"	Niagara Falls.
"	Niagara Falls South.
"	Port Colborne.
"	Ridgeway.
"	Thorold.
"	Welland.
Wellington	Alma.
"	Arthur.
"	Bellwood.
"	Clifford.
"	Drayton.
"	Elora.
"	Erin.
"	Ennotville.
"	Fergus.
"	Glen Allen.
"	Guelph.
"	Harriston.
"	Hillsburg.
"	Morriston.
"	Mount Forest.
"	Palmerston.
"	Rockwood.
Wentworth	Ancaster.
"	Binbrook.
"	Dundas.
"	Freelton.
"	Hamilton.
"	Jerseyville.
"	Mill Grove.
"	Lynden.
"	Saltfleet (Stony Creek P. O.)
"	Waterdown.
York	Aurora.
"	Bracondale.
"	Don.
"	Highland Creek.
"	Islington.
"	Keswick.
"	King.
"	Maple.
"	Markham.
"	Mount Albert.
"	Newmarket.
"	Queensville.
"	Richmond Hill.
"	Scarboro.
"	Stouffville.
"	Thornhill.
"	Toronto.
"	Toronto Junction.
"	Unionville.
"	Vandorf.
"	Weston.
"	Woodbridge.

The above list may be classified as follows:—

Public Libraries reporting	283
Free Libraries reporting	132
Public Libraries not reporting	22
Free Libraries not reporting	5
Public Libraries incorporated since 31st December, 1901	35
Total	477

I. PUBLIC LIBRARIES (NOT FREE).

The following extracts are taken from the annual reports for the year ending 31st December, 1901. (For details see table A).

1. Classification of Public Libraries Reporting.

Public Libraries, with evening classes	1
" with reading rooms	109
" without reading rooms	173
Total	283

2. Public Libraries—Receipts and Balances on hand.

The total receipts of 283 Public Libraries was	$90,241 61
Balances on hand	6,729 94

3. Public Libraries—Expenditure.

The total expenditure of 283 Public Libraries was. $83,511 67

4. Public Libraries—Assets and Liabilities.

Assets of 283 Public Libraries	$407,298 60
Liabilities of 283 Public Libraries	25,676 87

5. Number of Members in Public Libraries.

283 Public Libraries have 36,814 members.

6. No. of Volumes in Public Libraries and No. of Volumes Issued.

Number of volumes in 283 Libraries	505,544
Number of volumes issued in 283 Libraries	792,506

7. Reading Rooms in Public Libraries.

110 Libraries reporting have reading rooms.
*11 Libraries reported having periodicals for circulation.
121 Libraries subscribed for 2,488 newspapers and periodicals.

8. Evening Classes in Public Libraries.

One Library had 19 pupils in the drawing courses.

* A circular was recently issued by the Department giving Libraries without Reading Rooms the privilege of purchasing magazines for circulation, the same as books.

TABLE A,—Receipts, Expenditure, Assets and Liabilities, etc., of Public Libraries (not Free) for the year ending 31st December, 1901.

No.	Public Libraries.	Receipts.						Expenditure.	Balance on hand.	Number of members.	Number of volumes in Library.	Number of volumes issued.	Number of newspapers and periodicals.	Assets.	Liabilities.
		Balance from previous year.	Members' fees.	Legislative grant.	Municipal grant.	Other sources.	Total receipts.								
		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.
1	Aberarder	67 25	50 00	58 75	.....	70	176 70	150 76	25 94	102	3,219	3,298	26	1,716 00	150 00
2	Admaston	9 44	14 25	55 85	10 00	40	89 94	89 94	.. ....	156	1,196	1,460	....	610 00	.....
3	Alma	42	29 17	78 10	23 00	72 74	203 43	198 53	4 90	132	849	1,652	13	574 52	24 34
4	Allan's Mills	7 79	12 60	28 40	.....	.....	48 79	46 33	2 46	105	436	735	.....	300 00	.... ..
5	Alliston	.....	58 00	71 30	.....	.....	129 30	129 30	.....	113	1,905	2 422	... ..	1,438 51	12 77
6	Almonte	105 50	102 00	162 00	150 00	18 74	538 34	454 40	83 84	109	3,240	5,759	27	3,474 93	....
7	Amherstburg	.....	82 45	120 00	150 00	202 20	554 65	554 65	.....	120	2,703	2,922	12	4,619 00	32 00
8	Ancaster	1 57	30 00	160 00	25 00	100 49	317 06	290 00	27 06	115	610	2,424	.. ....	476 90	75 00
9	Angus	3 32	13 00	32 60	15 00	78 23	142 15	126 00	16 15	120	498	644	10	290 72	77 77
10	Arkona	2 78	22 50	160 00	25 00	49 85	260 13	238 14	21 99	102	2,154	3,052	15	1,000 00	.....
11	Arthur	19	72 00	74 80	100 00	192 45	439 44	439 44	.....	125	2,826	2,490	21	1,943 00	180 95
12	Atwood	14 99	49 50	160 00	10 00	188 91	423 40	422 99	41	220	1,459	12,400	.....	1,165 08	174 68
13	Auburn	.....	17 90	96 60	25 00	219 27	358 77	341 77	17 00	105	1,063	2,535	14	734 82	173 06
14	Aurora	25 76	58 00	116 55	.....	78 40	278 71	274 85	3 86	126	2,852	6,245	.....	3,761 97	1,017 11
15	Avonmore	.....	162 00	.....	.....	22 46	184 46	184 41	05	145	802	662	.. ...	461 41	237 08
16	Baden	.....	74 25	59 80	35 00	98 01	267 06	267 06	.....	110	2,769	1,737	17	1,517 57	98 01
17	Badjeros	.....	45 25	.....	....	191 36	236 61	214 75	21 86	106	337	173	3	289 50	191 56
18	Bancroft	.....	93 00	....	.....	100 00	193 00	168 08	24 92	93	265	1,387	.....	168 08	100 00
19	Barrie	6 50	256 25	200 00	150 00	426 00	1,038 75	1,015 34	23 41	264	4,436	10,728	28	4,775 00	300 00
20	Bayham	42 75	23 00	51 20	.....	3 53	120 48	108 19	12 29	101	651	1,625	.....	456 09	.....
21	Baysville	.....	.....	... .	10 00	128 30	138 30	134 68	3 62	133	233	748	.....	132 70	.....
22	Beachville	.....	11 00	.....	....	200 60	211 00	201 00	10 00	171	381	19	.....	210 00	200 00
23	Beamsville	9 44	105 00	120 00	20 00	60 50	314 94	314 94	.....	169	2,161	3,942	5	2,046 83	....
24	Beaverton	25 79	53 25	119 55	50 00	9 23	257 82	257 73	09	113	1,326	2,097	24	1,123 64	94 75
25	Belleville	2 17	389 40	100 00	100 00	577 60	1,169 17	1,151 68	17 49	134	4,484	7,314	24	3,900 00	363 90
26	Belmont	5 37	14 50	16 70	... ...	53 50	90 07	90 07	.. ....	102	1,207	384	.....	897 58	45 00
27	Belwood	1 78	29 20	92 80	10 00	265 18	398 96	312 17	86 79	126	1,205	2,145	.....	1,021 44	49 53
28	Bervie	25 67	12 50	160 00	20 00	101 95	320 12	302 02	18 10	104	1,139	1,087	.....	610 00	101 95
29	Berwick	.....	26 00	.....	.....	200 00	226 00	200 00	26 00	103	358	66	.....	226 00	200 00
30	Binbrook	36 95	27 25	96 20	15 00	48	175 88	170 33	5 55	105	652	670	.....	388 92	96 40
31	Blenheim	15 70	110 75	177 40	70 00	155 78	529 63	471 53	58 10	165	3 526	5,583	21	2,550 00	156 00
32	Bloomburg	.. ..	18 50	.....	.....	17 60	36 10	34 70	1 40	114	150	204	....	31 85	10 00
33	Bloomfield	27 99	40 25	105 00	... .	38 08	211 32	211 32	...	73	1,625	5,501	13	1,219 64	41 58
34	Blyth	14 42	26 75	41 45	35 00	....	117 62	111 55	6 07	53	1,450	1,090	.....	673 97	.. ..

35	Bobcaygeon	87 88	43 50	33 60	50 00	16 15	231 13	209 56	21 57	84	2,128	2,556	21	1 857 84	....
36	Bolton	..	72 50	73 40	25 00	44 82	215 72	215 72	.....	145	2,719	4,719	16	1,62? 50	3 67
37	Bowmanville	7 22	130 60	141 00	150 00	183 15	611 97	608 72	3 25	146	3,291	5,546	44	3,410 18	136 85
38	Bracondale	22 53	29 00	160 00	25 00	56 38	292 91	236 62	56 29	116	1,152	1,882	...	700 00	141 80
39	Bradford	42	40 05	19 20	.....	5 05	104 72	103 10	1 62	182	2 072	3,208	....	1,671 40	91 29
40	Bridgeburg	... .	43 25	103 50	50 00	.....	196 75	193 30	3 45	103	912	3,230	.....	540 00	46 50
41	Brigden	.....	40 50	... .	.....	216 42	256 92	231 51	25 41	133	518	226	.....	233 92	208 51
42	Brooklin	8 29	33 50	133 60	50 00	80 00	305 39	300 83	4 56	166	1,806	3,170	4	1,084 10	80 00
43	Brucefield	.. ....	89 00	.....	15 00	123 34	227 34	219 52	7 82	121	328	684	....	223 34	65 00
44	Bruce Mines	... .	239 10	.....	.....	125 75	364 85	47 22	317 63	156	384	50	19	336 97	208 0·
45	Bunyan	9 81	22 00	.....	.....	165 26	197 07	146 46	50 61	100	371	587	...	208 00	100 08
46	Burford	16 69	80 65	130 80	.....	155 59	383 73	376 00	7 73	105	1,644	2,716	20	1,222 54	155 08
47	Burlington	33 57	55 00	93 00	25 00	131 75	338 32	311 75	26 57	110	2,075	5,136	9	1,612 57	65 00
48	Caistorville	....	44 75	117 94	10 00	....	172 69	160 99	11 70	105	373	1,009	.....	293 73	126 31
49	Calabogie	4 09	.....	.....	.....	....	4 09	4 09	.....	.....	247	.....	.....	132 03	20 00
50	Cambray	34	18 00	80 40	50 00	10	148 84	136 15	12 69	134	690	1,942	..	484 67	.....
51	Campbellford	8 20	96 35	130 90	140 00	30 00	405 45	404 83	62	181	3,975	4,359	20	2,125 00	30 00
52	Canfield	.....	96 00	.....	.....	140 00	236 00	221 06	14 94	102	278	182	....	234 52	140 00
53	Cannington	.....	51 40	94 60	75 00	25	221 25	218 05	3 20	105	2,136	2,120	21	1,749 74	55 78
54	Cargill	69 47	27 75	160 00	15 00	1 50	273 72	246 28	27 44	111	1,519	2,502	.....	1,061 21	.....
55	Carp	33 77	50 00	81 25	.....	.....	165 02	153 85	11 17	102	1,108	1,855	....	625 00	.....
56	Chapleau	1 07	96 95	143 70	.....	204 00	445 72	435 54	10 18	119	1,738	1,298	19	1,400 70	100 21
57	Chatsworth	.....	48 00	44 40	....	34 04	126 44	126 44	.....	103	2,440	3,924	10	1,692 98	24 22
58	Cheapside	11 18	20 32	67 30	....	.....	98 80	78 30	20 50	104	1,354	1,107	.....	929 69	.....
59	Cheltenham	31 78	17 00	78 90	.....	200 00	327 68	323 04	4 64	114	2,431	1,298	....	2,101 92	260 00
60	Claremont	.....	27 50	114 90	15 00	39 22	196 62	196 62	....	108	2,151	1,324	... .	1,565 88	1 17
61	Clarksburg	22 21	21 75	15 30	.....	.....	59 26	58 31	95	147	1,017	1,992	.....	955 26	.....
62	Claude	29 68	25 00	78 25	....	.....	132 93	85 82	47 11	107	2,688	2,093	....	1,800 00	.....
63	Cobden	.....	52 00	136 50	....	84 52	273 02	232 63	40 39	111	473	1,347	.....	310 79	95 15
64	Cobourg	1 99	242 75	166 40	100 00	143 49	654 63	645 50	9 13	280	3,395	10,740	33	2,100 00	125 00
65	Colborne	2 82	44 25	100 00	.....	100 02	247 09	247 49	.....	113	1,662	1,588	14	975 00	149 09
66	Coldstream	8 68	43 75	90 80	10 00	105 14	258 37	223 07	35 30	107	1,410	2,399	23	712 00	100 00
67	Coldwater	16 45	65 50	174 60	....	277 40	533 95	533 61	34	133	1,555	2 006	23	1,077 25	199 65
68	Comber	20 62	50 00	190 80	75 00	.....	336 42	306 55	29 87	100	1,691	2,802	20	1,025 00	.....
69	Cookstown	....	18 25	91 30	18 00	114 18	241 73	241 73	.....	106	1,330	3,950	.....	798 31	200 16
70	Crysler	.....	23 25	.....	.....	200 00	223 25	214 00	9 25	105	328	101	.. ..	214 75	200 00
71	Dorchester	17 74	17 00	88 40	.....	41 53	164 67	124 14	40 53	112	865	880	.....	712 16	.....
72	Douglas	7 85	26 75	70 20	.....	4 35	109 15	107 37	1 78	107	914	1,743	.....	597 64	.. ..
73	Dresden	9 70	59 20	158 50	25 00	163 18	415 58	410 98	4 60	132	1,511	3,666	.....	1,004 68	157 18
74	Dromore	....	40 00	.....	.....	200 00	240 00	222 05	17 95	146	375	265	.....	200 00	200 00
75	Drumbo	16 27	58 00	160 00	10 00	43 85	288 12	257 23	30 89	108	588	2,385	.....	413 38	....
76	Dryden	10 92	31 35	116 40	....	25 75	184 42	178 51	5 91	45	690	1,347	.....	543 76	.....
77	Duart	34 99	25 25	150 30	25 00	115 73	351 27	343 34	7 93	101	2,568	1,860	.....	1,793 09	60 45
78	Dufferin (Clanbrassil P.O.)	86 00	.....	.....	.....	.....	86 00	25 00	61 00	....	1,231	555	.....	955 38	.....
79	Dundalk	4 66	25 60	80 70	75 00	47 24	233 20	233 10	10	130	2,643	3,655	...	1,800 00	....
80	Dundas	26 08	190 00	160 00	300 00	161 92	838 00	831 79	6 21	225	7,342	5,941	42	6,044 69	....
81	Dungella	75	4 00	25 00	.....	87 91	117 66	111 91	5 75	112	347	430	....	153 00	87 91
82	Dungannon	39 75	26 75	82 65	25 00	107 30	281 45	272 84	8 61	105	1,564	2,154	13	875 00	100 30
83	Dunnville	12 39	51 00	111 25	50 00	68 74	293 38	263 69	29 69	120	3,272	6,828	2	1,179 69	68 74

TABLE A.—Receipts, Expenditure, Assets and Liabilities, etc., of Public Libraries (not Free) for the year ending 31st December, 1901.—*Continued.*

No.	Public Libraries.	Receipts.						Expenditure.	Balance on hand.	Number of members.	Number of volumes in Library.	Number of volumes issued.	Number of newspapers and periodicals.	Assets.	Liabilities.
		Balance from previous year.	Members' fees.	Legislative grant.	Municipal grant.	Other sources.	Total receipts.								
		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.
84	Durham	64 85	97 31	88 40	.....	6 80	257 36	226 12	31 24	109	4,013	3,650	21	4,000 00	.....
85	Easton's Corners	35 48	14 30	46 00	.....	40	96 18	72 60	23 58	101	993	734	....	725 66	.. ....
86	Elmira	20	75 50	116 45	25 00	77 97	295 12	294 04	1 08	126	2,759	2,415	18	1,974 43	30 00
87	Elmvale	7 59	49 62	160 00	.....	209 34	426 55	425 63	92	124	1,421	2,485	.....	809 83	246 78
88	Elmwood	.....	85 14	.....	15 00	202 36	302 50	259 50	43 00	103	475	1,709	.....	225 77	200 00
89	Elora	.....	136 20	127 90	110 20	183 44	557 74	557 74	.....	143	9,049	6,776	22	8,250 00	141 45
90	Embro	30 24	79 00	114 20	25 00	.....	248 44	248 15	29	115	4,820	4,518	12	3,997 33	.....
91	Emsdale	10 22	18 90	120 00	10 00	2 50	161 62	141 80	19 82	102	759	598	....	567 50	147 72
92	Ennotville	59 76	22 75	104 00	25 00	38 80	250 31	218 68	31 63	165	2,755	1,186	.....	2,230 00	.....
93	Essex	.....	64 55	141 40	150 00	179 33	535 28	532 48	2 80	134	2,610	3,122	24	2,334 13	115 37
94	Ethel	46 60	9 75	80 10	15 00	4 02	155 47	136 02	19 45	171	1,472	1,854	..	974 41	.....
95	Fenella	30 57	21 20	32 65	.....	.....	84 42	78 27	6 15	106	581	476	.....	247 60	.....
96	Fenelon Falls	7 72	97 50	46 20	100 00	187 29	438 71	424 69	14 02	151	3,449	4,101	32	2,540 00	207 84
97	Fergus	8 54	80 00	113 75	50 00	15 07	267 36	267 36	.....	127	4,721	3,314	18	5,770 00	92
98	Finch	.....	64 00	.....	.....	214 83	278 83	226 30	52 53	139	413	359	.....	272 81	218 53
99	Flesherton	4 86	55 00	.....	.....	192 01	251 87	243 71	8 16	109	1,431	1,325	.....	600 00	181 21
100	Floradale	10 20	32 25	86 80	.....	.....	129 25	127 78	1 47	131	1,979	1,829	....	997 24	.....
101	Fonthill	8 12	46 75	171 90	50 00	64 31	341 08	312 71	28 37	102	2,614	3,051	24	2,379 45	50 00
102	Fort Erie	15 62	30 60	115 10	35 00	60	196 92	148 30	48 62	104	2,612	2,866	...	1,668 92	7 00
103	Fort Francis	....	84 60	149 10	50 00	47 41	331 11	331 11	.....	106	894	1,316	22	935 00	10 11
104	Freelton	2 20	31 50	78 40	.....	33 30	144 40	144 40	.....	130	274	933	....	252 32	46 41
105	Gananoque	.....	263 00	118 00	250 00	10 33	641 33	574 94	66 39	173	2,930	9,492	19	2,280 00	115 00
106	Glen Allan	1 32	13 50	70 75	15 00	51 50	152 07	146 54	5 53	103	999	1,082	... ..	750 32	56 77
107	Glen Morris	4 04	30 30	109 00	50 00	.....	193 34	189 59	3 75	100	2,264	1,281	15	1,785 00	.....
108	Gore's Landing	7 43	23 10	99 70	.....	117 26	247 49	247 49	.....	126	751	941	.....	676 02	98 48
109	Gorrie	.....	14 65	85 40	15 00	.....	115 05	114 48	57	156	1,900	2,251	....	1,477 88	.....
110	Haileybury	8 95	1 50	36 75	.....	2 20	49 40	43 65	5 75	139	227	315	.....	125 43	80
111	Haliburton	13	25 00	71 45	25 00	28 79	150 37	141 95	8 42	100	515	1,378	.....	271 03	.....
112	Hanover	49	26 35	126 40	....	49 05	202 29	196 49	5 80	146	653	2,194	....	483 80	43 75
113	Harrington	17 89	41 00	.....	.....	80 00	138 89	135 21	3 68	102	835	1,269	.....	500 00	80 00
114	Harrow	19 53	39 00	117 75	50 00	104 33	330 61	199 08	131 53	109	936	2,322	.....	423 70	102 08
115	Hawkesville	7 16	16 15	87 00	.. ....	31 19	141 50	134 51	6 99	106	769	1,248	.....	356 91	....
116	Hensall	53 35	51 10	33 40	40 00	125 00	302 85	293 97	8 88	141	1,042	3,334	.....	751 56	125 00
117	Hepworth	.....	24 00	35 00	30 00	10 26	99 26	99 26	.....	108	932	1,495	.....	537 00	4 06

118	Highgate	19	26 50	160 00	25 00	72 96	284 65	248 55	36 10	107	1,202	4,725	55	1,040 00	200 02	
119	Highland Creek		21 00	44 00		40 00	105 00	79 31	25 69	60	1,513	1,539		1,267 46		
120	Hillsburg		58 30	160 00		44 78	263 08	263 08		126	926	1,978		725 00	201 20	
121	Holstein		42 00			200 00	242 00	200 95	41 05	115	424	132		241 05	200 00	
122	Huntsville	5 30	84 00	160 00	200 00	56 07	506 37	506 37		139	2,622	7,769	21	1,760 00	46 56	
123	Inglewood	4 52	11 90	52 20		68 56	137 18	129 61	7 57	119	1,780	4,175		1,355 79	37 56	
124	Inkerman			25 00		7 50	32 50	32 50		105	117			75 00	7 50	
125	Islington	01	42 00	60 70	10 00	4 00	116 71	114 25	2 46	149	1,382	1,727	8	707 00		
126	Jarvis	12 15	92 70	152 60		23 80	281 25	248 37	32 88	109	2,868	3,258	20	1,255 00	166 00	
127	Kars	11 43	21 50	87 10		7 73	128 16	122 66	5 50	101	1,616	1,313		998 16		
128	Kemble	6 6	34 50	160 00		313 0	514 13	514 13		120	8 8	1,873		545 00	322 52	
129	Kinburn	3 00	38 50	89 00		107 60	238 70	238 15	55	155	1,529	1,740		971 52	84 00	
130	Kincardine		118 58	126 80	170 00	150 91	566 29	548 29	18 00	179	4,477	9,784	30	3,598 00	500 91	
131	Kingston	3 87	310 85	200 00	300 00	75 00	890 32	872 55	17 77	340	6,851	18,974	57	6,360 00	176 64	
132	Kinmount	6 38	38 50	160 00	50 00	93 85	348 73	340 22	8 51	107	1,357	2,475		1,068 25	76 66	
133	Kintore	11 00	33 15		20 00	21 25	85 40	78 05	7 35	42	685	932		500 00		
134	Kirkfield	8 51	27 75	138 25	50 00	30 64	255 15	244 53	10 62	125	1,314	1,735	16	813 40		
135	Lake Charles	1 68	25 00	82 50		47 36	156 54	151 38	5 16	104	1,999	1,836		1,354 79	47 36	
136	Lion's Head	3 71	3 50	57 75			44 96	22 00	22 96	114	1,033	712		232 70		
137	Little Britain	22 99	20 10	151 60	50 00	141 16	338 85	356 06	32 79	100	1,765	1,670	20	1,427 62	95 47	
138	Lucan	34 56	25 80		75 00	25 00	160 36	110 35	50 01	109	2,142	6,554		1,896 00		
139	Lynden	30 70	34 05	76 80	20 00	6 00	167 55	143 69	23 86	110	1,251	2,010		691 56		
140	Madoc		90 50	160 00	50 00	101 76	402 26	385 06	17 20	182	885	5,600	17	581 14		
141	Mallorytown	2 65	38 00	160 00			200 65	198 00	2 65	100	1,392	2,238		931 00	224 50	
142	Manilla	28 80	19 15	131 70	50 00	11 88	241 53	235 83	5 70	108	2,117	1,782		1,472 05		
143	Manitowaning	12 66	25 10	157 80	10 00	11 18	216 74	214 22	2 52	70	943	70	2	610 00	45 39	
144	Manotick	5 01	38 10	48 50		91 61	90 66	95		108	1,739	2,520		1,172 40		
145	Maple	1 27	15 73	50 60		67 60	67 11	49		102	564	1,052		416 68		
146	Markham		54 50	54 20	119 38		228 08	228 08		106	2,946	5,273		2,090 00	70 53	
147	Marksville	11 87	24 70	68 00	20 00	157 85	282 42	278 52	3 90	102	600	491		389 44	156 00	
148	Matilda (Iroquois P.O.)	26 93	14 75			40 00	81 68	71 54	10 14	98	152	152		72 04	30 00	
149	Maxwell & Feversham		164 00			47 27	211 27	211 27		175	474	217		203 67	40 00	
150	Meaford	33	81 39	133 60	40 00	68 10	323 42	322 37	1 05	154	2,638	3,965	19	2,935 00		
151	Melancthon		2 55	94 10		154 9	251 58	251 58		101	1,025	1,043		516 00	154 93	
152	Melbourne	8 70	27 00	38 55		92 05	166 30	152 80	13 50	108	884	1,160		625 00	126 18	
153	Metcalfe		33 50			200 60	233 50	200 00	33 50	152	539	1,152		420 00	200 00	
154	Middleville		25 00			200 01	225 01	200 01	25 00	174	462	161		200 00	200 00	
155	Mildmay	44 51	18 10	122 10	20 00	118 04	322 75	322 02	73	139	1,63	2,19		870 25	118 04	
156	Millgrove		11 75	150 00		36 10	197 85	197 85		127	441	2,068	3	254 22	34 55	
157	Milton		54 30	85 80		105 86	245 96	226 65	19 31	149	3,762	4,451	12	4,360 00	72 27	
158	Minden	17 71	27 50	78 10	25 00	10 83	159 14	159 14		107	823	1,815		730 27	84 28	
159	Mississippi	10 46	14 13	107 10		203 12	334 81	202 84	131 97	105	813	705		470 00	202 84	
160	Molesworth		72 00			151 47	223 47	223 47		144	343	240		200 00	150 00	
161	Monkton	4 99	25 60	160 00	15 00	212 23	417 82	416 31	1 51	104	1,240	1,726		864 11	219 00	
162	Mono Mills	32 53	3 13				35 66	16 19	19 47	4	576			268 33		
163	Mono Road		30 00	40 67		20 62	91 29	91 29		100	1,834	3,330		1,700 00	65 29	
164	Morrisburg		131 50	101 40	75 00	80 34	388 24	388 24		122	2,356	3,659	23	1,275 00	50 00	
165	Morriston	12 36	36 25	26 00		45 50	120 11	111 49	8 62	104	1,181	2,256	3	685 86		
166	Mount Albert	26 72	23 55	68 80		18 75	137 82	136 35	1 47	105	695	2,202		481 91	11 51	
167	Mount Brydges		86 00		20 00	75	06 75	24 74	82 01	256	378			207 30	189 56	

TABLE A.—Receipts, Expenditure, Assets and Liabilities, etc. of Public Libraries (not Free) for the year ending 31st December, 1901.—*Continued.*

No.	Public Libraries.	Receipts.						Expenditure.	Balance on hand.	Number of members.	Number of volumes in Library.	Number of volumes issued.	Number of newspapers and periodicals.	Assets	Liabilities.
		Balance from previous year.	Members' fees.	Legislative grant.	Municipal grant.	Other sources.	Total receipts.								
		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.
168	Mount Forest	26 79	100 65	104 90	75 00	51 35	358 69	293 48	65 21	212	3,198	3,823	14	2,873 00	
169	Munster	2 85	7 00	50 70			60 55	59 30	1 25	114	209	821		113 33	
170	Nanticoke	66	14 85	160 00		56 31	231 82	229 37	2 45	151	1,962	1,722		1,278 99	144 01
171	Napanee	26 21	290 00	100 00	550 00	3,524 29	4,490 50	4 490 50		250	3,819	8,437	33	4,800 00	
172	Newburgh	12 54	82 51	96 20		155 65	346 90	340 10	6 80	100	1,877	1,617	21	1,598 77	157 42
173	Newbury	7 89	24 25	121 60		164 63	318 37	308 04	10 33	107	559	2,653		316 06	148 28
174	New Hamburgh	22 18	52 00	152 15	50 00	30 00	306 33	298 26	8 07	109	2,440	2,206	3	1,685 71	199 51
175	New Dundee	30 16	22 40	160 00	25 00	170 26	407 82	396 16	11 66	103	741	655		416 37	170 26
176	Newington		91 50			199 21	290 71	230 97	59 74	122	369	390	10	1 002 71	194 71
177	Newmarket	104 16	79 55	80 65	35 00	153 42	452 78	370 07	82 71	194	2,135	4,585		1,761 62	135 54
178	Niagara		136 13	112 10	50 00	54 30	352 53	303 94	48 59	118	5,333	5,416	26	5,000 00	
179	Niagara Falls	25 84	90 00	186 75	500 00	4 65	807 24	786 50	20 74	360	5,361	9,266	25	6,700 00	
180	North Gower	5 67	49 25	57 00		56 61	168 53	158 52	10 01	128	1,699	3,268		900 00	
181	Norwich	47 26	95 40	200 00	100 00	11 14	453 80	357 37	96 43	112	1,415	3,805	16	940 00	
182	Norwood	4 83	45 49	175 10	25 00	203 97	454 39	420 92	33 47	189	2,097	7,027	16	1,171 21	261 21
183	Oakville	87	47 55	92 55	65 00	59 00	264 97	264 97		129	3,320	2,928		2,770 00	58 50
184	Oakwood	16 16	33 30	175 00	50 00	395 34	669 80	623 03	46 77	103	1,325	1,509	28	820 95	175 28
185	Odessa	1 97	37 75	96 10		188 67	324 49	320 71	3 78	153	831	2,551	12	530 73	98 75
186	Omemee	81	51 50	93 40	100 00	33 00	278 71	269 99	8 72	133	1,098	2,514	25	894 26	
187	Ophir	29 40	18 51	32 00		25 69	105 60	95 50	10 10	100	168	134		107 09	
188	Orangeville	61 51	102 00	182 50	100 00	745 40	1,191 41	1,123 64	67 77	220	3,331	3,980	28	3,231 26	300 00
189	Orillia	5 77	214 25	140 50	200 00	13 95	574 47	562 58	11 89	231	4,001	7,594	22	3,926 50	315 00
190	Orono	11	48 60	77 50		3 40	129 61	125 32	4 29	130	1,355	2,075		1,141 10	
191	Ottawa.*		226 00			105 00	331 00	314 20	46 80	226	242			324 20	13 85
192	Owen Sound		210 00	150 20		22 45	382 65	382 20	45	210	4,752	10,670	23	5,000 00	
193	Oxford Mills	60	17 50			56 65	74 75	73 20	1 55	105	1,179	5,143		963 00	52 05
194	Pakenham	3 32	30 90	27 35		21 27	82 84	82 83	01	118	504	1,387		363 29	33 06
195	Palmerston	3 13	49 25	169 75	75 00	217 28	514 41	511 18	3 23	190	1,857	7,677	29	1,150 00	350 00
196	Paris	56 42	216 95	162 60	150 00	54 12	640 09	640 09		138	6,760	6,230	39	11,395 11	15 00
197	Perth	8 75	126 00	117 10	100 00	76 25	428 10	425 57	2 53	103	4,158	3,126	13	2,000 00	243 50
198	Peterborough	95 99	463 75	286 00		456 50	1,302 24	1,297 25	4 99	374	9,101	15,430	86	11,214 44	
199	Pickering	63 15	45 55	61 70	40 00	3 38	213 78	102 40	111 38	100	1,530	1,748	16	1,225 00	
200	Picton	8 29	161 08	129 75	50 00	200 49	549 61	492 73	56 88	171	2,470	9,228	19	1,493 00	211 18
201	Pinkerton		25 25	144 00	15 00	186 27	370 52	370 29	23	101	1,185	1,130		782 19	185 57

202	Plattsville	45 37	29 77	40 30	10 00	45	125 89	87 85	38 04	108	883	1,052	....	573 89	.....	
203	Point Edward	119 99	28 09	160 00	50 00	.....	358 08	319 95	38 13	135	3,421	3,251	4	3,525 29	.....	
204	Port Arthur	27 30	110 00	160 00	988 05	50 00	1,335 35	1,289 96	45 39	187	1,918	3,581	23	2,469 21	130 00	
205	Port Burwell	.....	66 00	.. .. ..	....	166 88	232 88	219 65	13 23	100	465	1,027	.....	213 73	190 50	
206	Port Credit	13 15	33 15	97 30	.....	4 36	147 96	147 41	55	110	1,396	1,526	. ...	853 28	....	
207	Port Dover	.....	122 50	160 00	....	66 61	349 11	299 29	49 82	124	711	3,842	23	465 00	....	
208	Port Elgin	95	27 00	65 85	10 00	62 60	166 40	164 46	1 94	108	3,223	3,628	18	1,898 27	.. ..	
209	Port Hope	66 19	290 00	200 00	100 00	514 67	1,170 86	1,052 39	118 47	190	4,814	7,746	31	4,344 45	149 42	
210	Port Perry	9 56	123 15	107 00	60 00	159 55	459 26	456 91	2 35	172	1,839	4,068	19	1,450 00	71 65	
211	Port Stanley	49	43 75	115 40	.....	2 40	162 04	160 77	1 27	124	1,081	1,935	....	830 00	....	
212	Powassan	1 60	38 70	157 10	.....	10 80	208 20	202 10	6 10	136	602	1,838	.....	425 00	149 90	
213	Princeton	69	49 95	160 00	10 00	136 40	357 04	332 67	24 37	102	1,402	3,043	.... .	827 11	37 03	
214	Preston	8 29	38 10	150 60	100 00	212 62	509 61	381 28	128 33	148	5,940	3,259	33	6,228 33	....	
215	Queensville	2 20	17 75	70 80	.....	1 26	92 01	90 54	1 47	119	1,929	1,942	.....	1,240 23	55 00	
216	Rat Portage	8 61	179 50	200 00	300 00	692 45	1,380 56	1,271 31	109 25	118	2,410	5,200	28	1,855 82	505 00	
217	Richmond	9 63	50 50	96 50	....	5 29	161 92	150 92	11 00	101	1,223	1,641	.....	866 92	....	
218	Ridgetown	. .. ..	154 25	162 90	95 00	236 97	649 12	473 90	175 22	214	3,456	4,276	19	4,495 49	....	
219	Ripley	..	79 25	43 00	40 00	29 94	192 19	192 19	.....	139	1,436	719	.....	1,143 22	186 48	
220	Riversdale	27 24	8 25	40 60	15 00	55 81	146 90	143 00	3 90	151	888	1,002	.....	578 9.	55 81	
221	Rockwood	7 90	49 50	94 60	.....	91 10	243 10	225 27	17 83	104	1,270	2,159	13	526 82	.....	
222	Rodney	22 36	13 60	132 15	.....	63 88	231 99	231 99	.....	121	954	1,611	10	886 04	145 62	
223	Romney	23 87	33 90	129 40	25 00	1 25	213 42	196 09	17 33	106	2,138	1,228	1	1,623 96	10 25	
224	Rosemont	5 00	22 75	160 00	.....	227 94	415 69	415 69	.....	125	1,207	1,597	. ....	840 19	197 94	
225	Rosseau	25 47	33 10	160 00	.....	72 25	290 82	290 82	..... .	103	565	978	.....	250 90	53 23	
226	Russell	17 27	72 90	70 00	.....	293 78	453 95	418 42	35 53	152	1,488	3,519	24	2,087 53	154 18	
227	Saltfleet (Stony Cr'k P.O.)	.....	27 50	....	....	200 00	227 50	215 50	12 00	110	432	822	.....	340 01	200 00	
228	Sault Ste. Marie	49 60	92 00	138 60	200 00	.. ..	480 20	429 77	50 43	372	2,060	8,637	20	1,082 00	.....	
229	Scarboro'	41 20	86 40	160 00	.....	.....	287 60	263 16	24 44	126	5,107	3,449	....	3,725 00	... .	
230	Schreiber	25 30	323 45	85 40	.....	661 65	1,095 80	646 10	449 70	182	1,508	3,605	14	2,643 53	280 00	
231	Scotland	13 85	49 55	115 40	.....	112 16	290 96	238 25	52 71	122	1,028	2,332	23	702 38	.....	
232	Shakespeare	44 35	30 25	160 00	.....	242 42	477 02	453 69	23 33	121	1,314	2,739	.....	810 25	110 00	
233	Shallow Lake	1 18	75 00	.....	.....	282 65	308 83	287 00	21 83	150	988	2,199	.....	534 87	210 78	
234	Shedden	11 87	53 50	87 40	.....	....	152 77	138 78	13 99	107	1,122	1,660	.....	595 99	125 00	
235	Smithville	... .	96 00	....	.....	199 55	295 55	207 55	88 00	154	280	276	.....	199 55	199 55	
236	Southampton	99 80	51 30	75 00	30 00	20 00	276 10	196 72	79 38	140	4,082	3,369	9	3,193 24	....	
237	South River	8 89	40 50	80 45	5 00	50 41	185 25	147 85	37 40	103	793	1,218	.....	1,027 99	.....	
238	Sparta	39 19	28 00	87 10	.....	51 94	206 23	166 11	40 12	118	2,198	2,738	.....	1,681 82	40 00	
239	Spencerville	9 02	8 75	38 75	....	51 20	107 72	107 72	.... ..	127	509	1,450	.....	300 00	51 20	
240	Sprucedale	.....	19 75	160 00	.....	4 50	184 25	183 40	85	124	540	935	.....	380 00	166 00	
241	Strathroy	86 58	158 75	184 90	75 00	528 50	1,033 73	839 81	193 92	284	5,616	17,148	25	5,200 00	25 00	
242	Streetsville	.....	46 25	147 70	30 00	351 18	575 13	561 92	13 21	106	2,726	2,709	21	3,300 00	495 48	
243	St. George	85	41 85	158 35	50 00	152 89	403 94	385 68	18 26	113	4,892	2,409	9	5,163 20	....	
244	St Helen's	8 32	31 05	83 10	55 00	100 55	278 02	241 76	36 26	105	1,493	1,088	23	1,253 66	94 05	
245	Sunderland	77 16	14 75	124 20	55 00	97 56	368 67	256 69	111 98	112	1,608	1,102	23	1,152 00	... .	
246	Sunnidale (N. Lowell P.O.)	.....	41 50	123 85	....	33 67	199 02	199 02	.....	103	573	1,156	.....	329 47	111 03	
247	Tavistock	52 77	81 75	193 80	.....	121 73	450 05	387 54	62 51	109	2,965	3,511	25	1,638 80	.....	
248	Teeswater	57 91	60 30	105 05	35 00	79 20	337 46	280 95	56 51	134	3,559	2,954	18	2,225 00	....	
249	Thamesford	... ..	49 75	92 00	.....	48 58	190 33	186 13	4 20	131	1,687	2,945	17	1,230 79	19 48	

* Ottawa Public Library not having conformed with the regulations has been closed.

8 E

TABLE A.—Receipts, Expenditure, Assets and Liabilities, etc., of Public Libraries (not Free) for the year ending 31st December, 1901.—*Continued.*

No.	Public Libraries.	Receipts.						Expenditure.	Balance on hand.	Number of members.	No. of volumes in Library.	No. of volumes issued	No. of magazines and periodicals	Assets.	Liabilities.
		Balance from previous year.	Members' fees.	Legislative grant.	Municipal grant.	Other sources.	Total receipts.								
		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.
250	Thamesville	1 91	117 00	123 80	150 00	369 28	761 99	651 60	110 39	130	3,359	4,287	19	2,862 09	417 39
251	Thedford	29 21	50 50	146 70	.....	5 13	231 54	210 43	21 11	102	1,779	4,213	.....	965 00	.....
252	Thornbury	6 24	14 25	48 30	25 00	102 75	196 54	153 62	42 92	119	1,000	1,882	.....	355 00	.....
253	Thornloe	74	25 25	42 00	.....	60 48	128 47	121 55	6 92	101	448	507	..	272 93	48 16
254	Tilbury	.....	58 39	168 10	60 00	243 42	529 91	529 91	.....	115	1,831	2,640	21	1,308 20	235 67
255	Tilsonburg	17 20	106 50	133 00	150 00	106 55	513 25	508 13	5 12	200	2,550	5,769	19	1,800 00	105 00
256	Tiverton	3 15	32 00	94 40	20 00	58 36	207 91	193 63	14 28	100	1,724	2,170	.....	1,125 00	119 30
257	Toronto Junction	52 64	110 75	176 30	300 00	149 01	788 70	759 35	29 35	148	3,170	5,412	29	2,500 00	83 76
258	Trout Creek	.....	18 50	105 20	.....	91 13	214 83	214 83	.....	108	1,019	1,103	.....	774 79	151 77
259	Underwood	6 46	25 00	122 00	20 00	1 40	174 86	162 53	12 33	126	2,373	2,663	.....	1,020 00	25 00
260	Unionville	62	23 50	.....	.....	26 62	50 74	44 24	6 50	110	490	1,670	.....	325 00	25 00
261	Vandorf	16 36	56 00	81 90	.....	20 65	174 91	169 31	5 60	112	2,186	1,092	.....	1,670 00	96 36
262	Vankleek Hill	23 08	68 85	123 80	.....	36 67	252 40	246 23	6 17	121	753	2,321	.....	617 94	.....
263	Vars	19 00	32 30	160 00	.....	224 60	435 90	234 89	201 01	114	863	2,289	.....	600 00	174 55
264	Victoria (Caledonia P.O.)	9 57	16 50	80 00	10 00	21 20	137 27	137 07	20	132	2,224	1,725	.....	1,569 00	.....
265	Wales	.....	104 00	160 00	.....	6 62	270 62	270 62	.....	119	786	2,481	.....	411 18	214 64
266	Walkerton	6 23	115 20	140 40	10 00	167 64	439 47	439 47	.....	134	2,707	6,681	21	1,908 76	37 12
267	Walton	.....	77 00	.....	10 00	130 54	217 54	217 54	.....	105	468	210	13	247 00	130 00
268	Wardsville	55	7 50	86 80	.....	42 14	136 99	118 64	18 35	114	1,372	1,604	.....	910 51	66 14
269	Warkworth	.....	51 00	89 60	25 00	74 83	240 43	240 43	.....	105	1,039	810	21	674 67	152 99
270	Waterdown	1 34	26 00	67 80	.....	48 60	143 74	143 09	65	124	1,937	1,937	.....	816 65	45 00
271	Welland	91 48	73 00	156 80	150 00	70	471 98	388 19	83 79	209	3,653	5,881	35	4,265 48	.....
272	Wellesley	22 26	41 25	158 70	.....	56 90	279 11	252 13	26 98	163	1,020	3,151	.....	633 80	50 00
273	West Lorne	27	24 85	116 35	15 00	65 13	221 60	214 23	7 37	275	1,012	1,525	22	776 86	100 00
274	Weston	4 58	41 00	146 60	50 00	106 20	348 38	347 69	69	114	3,144	4,686	27	2,400 00	116 99
275	Wheatley	22 00	20 25	26 75	25 00	88 85	182 85	182 85	.....	100	1,380	3,942	.....	1,060 00	110 85
276	Whitby	9 53	55 85	94 40	60 00	176 28	396 06	384 22	11 84	135	3,005	4,561	.....	1,963 56	156 00
277	White Lake	3 05	20 20	49 40	.....	5 10	77 75	69 32	8 43	113	595	1,558	.....	300 00	.....
278	Williamstown	55	45 25	98 70	35 00	3 60	183 10	180 90	2 20	116	1,131	1,385	..	1,152 40	20 00
279	Woodbridge	105 67	24 00	83 30	.....	35 00	247 97	137 86	110 11	208	1,736	1,626	13	1,250 00	276 00
280	Woodstock	54 01	399 50	200 00	125 00	6 80	785 31	745 21	40 10	296	5,550	11,931	39	3,800 00	109 00
281	Woodville	4 70	46 75	121 25	75 00	18 09	265 79	221 73	44 06	102	2,203	2,106	27	1,453 00	.....
282	York	.....	19 55	77 00	10 00	69 23	175 78	.....	.....	125	920	1,372	4	535 12	140 83
283	Zephyr	1 40	19 70	170 60	24 87	.....	216 57	209 65	6 92	115	1,060	1,161	.....	706 10	191 09
	Total	4,304 63	17,343 69	26,929 71	10,929 12	30,734 46	90,241 61	83,511 67	6,729 94	36,814	505,544	792,506	2,488	407,298 60	25,676 87

II. PUBLIC LIBRARIES, FREE.

The following extracts are taken from the Annual Reports for the year ending 31st December, 1901, (for details see table B).

1. Classification of Free Libraries Reporting.

Free Libraries, with reading rooms	84
" " without reading rooms	48
Total	132

2. Free Libraries Receipts and Balances on Hand.

The total receipts of 132 Free Libraries was	$135,554 68
Balances on hand	6,986 28

3. Free Libraries Expenditure.

The total expenditure of 132 Free Libraries was	128,568 40

4. Free Libraries Assets and Liabilities.

Assets of 132 Free Libraries	673,303 11
Liabilities "	112,510 57

5. Number of Readers in Free Libraries.

132 Free Libraries report having had 118,547 readers.

6. No. of Volumes in Free Libraries, and No. of Volumes Issued.

Number of volumes in 132 Free Libraries	560,573
Number of volumes issued "	1,875,855

7. Reading Rooms in Free Libraries.

84 Free Libraries reported having reading rooms.
3 " " reported having periodicals for circulation.
87 " " subscribed for 3,574 newspapers and periodicals.

TABLE B.—Receipts, Expenditure, Assets and Liabilities, etc., of Public Libraries (Free) for the year ending 31st December, 1901.

No.	Free Libraries.	Balance from previous year.	Members' fees.	Legislative grant.	Municipal grant.	Other sources.	Total receipts.	Expenditure.	Balance on hand.	Number of readers.	Number of volumes in Library.	Number of volumes issued.	Number of newspapers and periodicals.	Assets.	Liabilities.
		$ c.	$ c	$ c	$ c.	$ c.	$ c	$ c.	$ c.					$ c.	$ c.
1	Acton	13 05	.....	154 30	112 50	20 01	299 86	272 35	27 51	167	1,752	3,569	.....	1,762 85	197 36
2	Ailsa Craig	90 87	7 00	71 25	100 00	17 21	286 33	189 56	96 77	140	2,096	880	.....	1,874 66	.....
3	Algonquin	3 42	8 75	62 90	....	108 75	183 82	183 07	75	132	1,470	1,299	.....	921 00	108 75
4	Alton	22 80	19 50	121 20	.....	60 80	224 30	220 80	3 50	194	5,175	3,235	.....	4,444 94	.....
5	Arnprior	2 03	.....	152 65	100 00	141 25	395 93	357 71	38 22	345	2,291	4,538	.....	1,443 22	110 62
6	Aylmer	.....	12 00	176 40	300 00	23 45	511 85	509 05	2 80	440	3,897	7,824	33	3,250 00	... .
7	Ayr	23 44	.....	81 40	137 00	31 83	273 67	253 38	20 29	387	3,206	6,052	31	1,700 00	.....
8	Beeton	38	.....	86 20	.....	361 37	447 95	445 17	2 78	113	2,166	3,701	10	1,500 00	275 00
9	Belfountain	.....	25 00	81 00	30 00	76 00	212 00	212 00	....	160	2,036	2,415	.....	1,400 00	58 00
10	Berlin	.....	.....	200 00	1,608 30	432 00	2,240 30	2,240 30	.....	1,149	8,044	15,791	60	7,780 86	200 00
11	Bothwell	92 63	.....	160 00	100 00	164 42	517 05	404 29	112 76	288	1,771	3,846	.....	1,180 00	151 01
12	Bracebridge	2 58	.....	53 90	350 00	164 54	571 02	469 55	101 47	315	2,618	5,467	22	1,625 00	113 34
13	Brampton	234 81	.....	185 40	340 00	40 45	800 66	679 92	120 74	615	3,989	20,544	20	2,443 97	.....
14	Brantford	748 72	4 00	200 00	2,200 00	338 34	3,491 06	3,170 91	320 15	2,617	17,629	70,729	67	14,650 00	.....
15	Brighton	.....	... ...	142 00	250 77	20 56	413 33	410 53	2 80	277	2,584	4,500	24	1,100 00	200 00
16	Brockville	208 68	16 50	200 00	1,100 00	291 86	1,817 04	1,814 69	2 35	2,190	9,273	40,660	54	4,900 00	9 00
17	Brussels	5 97	46 00	157 75	140 00	22 19	371 91	371 72	19	289	2,699	5,111	29	1,425 00	....
18	Burk's Falls	10 19	.....	179 60	175 00	4 12	368 91	354 19	14 72	345	2,143	3,234	22	1,235 00	.....
19	Burnstown	6 78	....	41 00	.. ..	6 00	53 78	11 05	42 73	100	673	757	.....	310 00	... .
20	Ca'edon	.....	.....	160 00	... .	151 67	311 67	311 67	.....	103	3,125	1,625	.....	2,393 15	130 48
21	Caledonia	35 56	....	160 00	40 00	.....	235 56	200 65	34 91	147	2,334	4,662	.....	1,175 65	.....
22	Camden East	.....	.....	72 60	55 00	62 65	190 25	190 25	.....	243	1,543	2,330	16	865 37	79 33
23	Cardinal	.....	50	139 45	150 00	253 40	542 85	440 45	102 90	208	4,837	2,714	26	1,270 00	250 00
24	Carleton Place	122 90	.....	160 00	350 00	48 17	681 07	483 57	197 50	476	3,962	14,250	18	2,740 00	.....
25	Cayuga	9 12	1 60	160 00	89 00	.....	259 72	257 45	2 27	121	1,676	3,192	.....	1,025 00	166 07
26	Chatham	256 20	....	200 00	1,146 57	116 13	1,718 90	1,270 91	447 99	1,008	5,943	18,496	38	5,347 99	....
27	Chesley	103 34	6 00	108 10	187 58	97 87	502 89	411 27	91 62	293	1,624	5,303	23	830 00	.....
28	Chesterville	10 48	.....	126 40	50 00	77 75	264 63	239 26	25 37	308	1,055	4,380	....	837 94	85 18
29	Clifford	....	15 60	133 75	75 00	107 91	332 26	332 26	.....	154	3,354	2,001	.....	1,502 61	107 91
30	Clinton	101 31	.....	200 00	165 00	286 86	753 17	661 00	92 17	551	4,193	12,013	28	13,144 75	.....
31	Collingwood	60 97	.....	155 90	655 00	2,208 44	3,080 31	3,055 13	25 18	785	4,956	11,030	37	7,236 51	100 00
32	Copleston	12 00	13 05	81 75	20 00	106 49	233 29	230 93	2 36	114	1,001	1,914	.....	625 00	.....
33	Copper Cliff	37 14	.....	38 80	.....	10 00	85 94	75 35	10 59	67	1,223	829	.....	991 07	30 00
34	Cornwall	38 86	54 74	160 00	400 00	185 65	839 25	831 77	7 48	674	3,328	12,180	35	2,319 90	766 50

TABLE B.—Receipts, Expenditure, Assets and Liabilities, etc., of Public Libraries (Free) for the year ending 31st December, 1901.—*Continued.*

No.	Free Libraries.	Balance from previous year.	Members fees.	Legislative grant.	Municipal grant.	Other sources.	Total receipts.	Expenditure.	Balance on hand.	Number of readers.	Number of volumes in Library.	Number of volumes issued.	Number of newspapers and periodicals.	Assets.	Liabilities.
		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.
35	Creemore	23 48	4 75	66 40	25 00	1 60	121 23	116 48	4 75	125	1,092	1,567	.....	500 00	.....
36	Dalhousie (McDonald's Corners P.O.)	3 33	.....	50 40	.....	66 78	120 51	116 92	3 59	100	588	681	3	315 00	53 78
37	Deseronto	111 80	.....	200 00	550 00	484 50	1,346 30	1,171 63	174 67	891	3,329	38,488	66	3,359 97	395 00
38	Delhi	46 65	.....	80 50	200 00	52 45	379 60	325 61	53 99	241	1,513	4,026	21	1,059 32	.....
39	Don	4 02	.....	80 00	25 00	45 93	154 95	154 95	.....	110	867	566	2	643 17	.....
40	Drayton	6 79	.....	.....	150 00	262 25	419 04	388 99	30 05	315	2,915	4,564	18	2,100 00	400 00
41	Dutton	9 55	46 73	148 20	50 00	3 81	258 29	258 29	.....	234	1,503	3,068	....	1,129 11	.....
42	Erin	14 31	.....	69 00	35 00	7 75	126 06	120 07	5 99	168	1,823	3,127	...	1,272 43	.....
43	Exeter	2 53	58 65	152 20	100 00	49 60	362 98	339 42	23 56	450	4,097	6,648	22	2,421 52	.....
44	Fordwich	11 96	19 75	55 70	15 00	18 40	120 81	116 50	4 31	107	1,623	2,305	.....	976 00	27 90
45	Forest	40 19	.....	191 50	250 00	222 17	703 86	686 00	17 86	441	3,314	6,371	19	3,092 86	180 00
46	Galt	1 36	.....	221 00	1,410 00	65 00	1,697 36	1,686 00	11 36	1,500	4,600	34,420	41	6,275 00	.....
47	Garden Island	202 06	.....	185 30	100 00	153 96	641 32	472 45	168 87	126	5,415	1,514	28	3,150 23	.....
48	Georgetown	41 70	.....	148 10	200 00	37 39	427 19	352 49	74 70	400	2,8.6	8,714	37	2,150 00	50 00
49	Glencoe	.....	12 25	160 00	30 88	56 78	259 91	259 91	.....	295	2,160	4,120	.....	1,025 00	40 03
50	Goderich	68 69	78 86	149 60	415 00	2 30	714 45	538 11	176 34	674	4,031	13,712	29	1,550 00	66 75
51	Grand Valley	17 32	.....	145 00	65 00	162 75	390 07	362 12	27 95	212	2,269	3,233	13	1,430 38	153 00
52	Grantham (St. Catharines P.O.)	12 22	.....	120 00	75 00	117 17	324 39	305 78	18 61	204	1,732	2,452	.....	1,125 00	100 00
53	Gravenhurst	11 97	.....	37 70	.....	40 25	89 92	87 65	2 27	554	2,701	4,628	.....	1,080 19	73 25
54	Grimsby	.....	1 00	154 25	295 00	.....	450 25	449 24	1 01	675	4,128	15,547	22	4,200 00	60 01
55	Guelph	.....	.....	200 00	1,400 32	113 95	1,714 27	1,714 27	.....	1,336	10,664	58,091	48	10,950 00	.....
56	Hagersville	21 09	.....	184 80	150 00	61 55	417 44	410 03	7 41	550	1,941	5,843	19	1,359 52	191 97
57	Hamilton	32 84	101 10	200 00	12,900 00	1,347 32	14,581 26	14,566 56	14 70	11,019	29,593	186,472	287	70,241 20	28,216 40
58	Harriston	92 71	7 50	28 80	317 00	182 29	628 30	608 85	19 45	367	4,135	4,336	31	2,597 77	115 25
59	Hespeler	211 56	.....	89 00	185 00	61 97	547 53	442 30	105 23	386	3,154	8,719	23	2,650 00	.....
60	Holyrood	7 88	.....	66 70	20 00	105 70	200 28	183 01	17 27	100	1,661	3,971	.....	1,756 73	95 20
61	Ingersoll	14 26	.....	181 60	530 00	82 33	808 19	808 19	.....	1,007	3,961	19,203	25	2,100 00	11 34
62	Iroquois	29 26	.....	82 00	150 00	142 10	403 36	403 36	.....	200	1,878	3,712	22	1,779 61	156 00
63	Kemptville	109 90	.....	120 70	282 35	409 91	922 86	862 95	59 91	309	1,141	6,941	15	855 47	175 93
64	Kingsville	43 05	.....	172 30	250 00	54 10	519 45	410 49	108 96	227	1,323	4,162	23	1,168 96	70 00
65	Lakefield	19 96	1 00	71 20	100 00	14 80	206 96	181 42	25 54	1,740	1,069	2,487	17	600 00	.....
66	Lanark	24 08	.....	169 10	90 00	83 46	366 64	325 20	41 44	204	1,484	4,164	17	1,029 91	103 00
67	Lancaster	46 37	2 45	146 70	40 00	277 75	513 27	245 52	267 75	259	2,961	3,497	6	1,425 00	.....

TABLE B.—Receipts, Expenditure, Assets and Liabilities., etc., of Public Libraries (Free) for the year ending 31st December. 1901.—*Continued.*

No.	Free Libraries.	Balance from previous year.	Members' fees.	Legislative grant.	Municipa grant.	Other sources.	Total receipts.	Expenditure.	Balance on hand.	Number of readers.	Number of volumes in Library.	Number of volumes issued.	Number of newspapers and periodicals.	Assets.	Liabilities.
		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.
68	Leamington	95 59		89 40	265 00	78 00	527 99	444 44	83 55	376	1,516	5,057	16	1,340 00	
69	Lindsay	16 11		200 00	827 23	54 94	1,098 28	1,096 74	1 54	1,227	3,619	19,299	46	3,805 70	56 45
70	Listowel		63 44	199 75	100 00	200 00	563 19	562 97	22	500	2,955	7,685	21	2,000 00	200 00
71	Little Current	06		81 50	35 00	0 80	117 36	117 36		265	1,334	3,300		905 00	86
72	London	2,026 12		200 00	5,300 00	496 84	8,022 96	7,868 45	154 51	831	15,522	76,238	185	36,000 00	19,891 06
73	Lucknow	3 32	49 35	158 70	50 00	25 00	286 37	284 42	1 95	321	3,389	5,164		1,500 00	
74	Markdale	19 78	26 00	166 40	136 60	1 25	350 03	347 64	2 39	178	2,627	3,967	18	2,310 39	
75	Merrickville	51 73	9 40	160 00	125 00	91 74	437 87	372 34	65 53	253	2,472	4,408		2,665 53	258 38
76	Merritton	68 79		80 00	100 00	8 61	257 40	227 02	30 38	298	1,731	1,855		1,057 30	
77	Midland	51 71		195 90	350 00	28 90	626 51	574 78	51 73	745	2,273	11,462	25	850 00	211 14
78	Millbrook	27 96		194 10	125 00	328 20	675 26	548 54	126 72	305	1,838	6,745	28	1,290 00	300 00
79	Milverton	29 05		160 00	40 00	171 82	400 87	364 73	36 14	188	1,774	2,918		1,254 99	163 77
80	Mitchell	28 14	2 50	141 80	335 00	102 29	609 73	597 43	12 30	194	3,814	6,033	18	4,678 36	
81	Nairn Centre			42 00		36 34	78 34	78 34		300	469	597		163 42	47 54
82	Napanee Mills (Strathcona P.O.)			152 45		29 89	182 34	176 57	5 77	135	1,120	1,568		530 00	164 43
83	Niagara Falls S	3 85	3 00	80 20	85 00	3 69	175 74	165 90	9 84	182	2,224	2,263		1,435 00	8 34
84	North Augusta	13 50	75	148 70	40 00	38 10	241 05	203 86	37 19	120	1,366	1,812		925 00	165 00
85	North Bay	21 98		116 90	125 00	4 95	268 83	259 88	8 95	250	1,906	3,695	17	1,703 59	
86	Oil Springs			120 00		200 00	320 00	289 81	30 19	224	1,825	4,228		1,350 00	
87	Oshawa	90 55		125 20	643 34	25 00	884 09	789 73	94 36	810	3,164	8,689	42	1,965 00	200 00
88	Otterville	41 76	8 65	83 40	26 82	127 37	288 00	169 17	118 83	226	739	1,910		535 38	221 87
89	Paisley	13 42	22 15	101 90	212 00	60 29	409 76	389 89	19 87	250	3,961	5,783	19	2,700 00	
90	Parkhill	6 86		97 25	100 00	23 08	227 19	223 27	3 92	377	2,008	3,564		1,073 10	
91	Parry Sound	1 90		132 80	225 00	119 75	479 45	479 45		324	1,609	2,814	19	1,175 00	106 00
92	Pembroke				600 00	312 17	912 17	912 17		374	1,693	4,289	23	850 00	225 00
93	Penetanguishene			150 00	352 49		512 49	512 49		343	1,739	9,021	10	2,515 00	
94	Port Carling	57	10 30	51 30	57 61	105 81	225 59	202 02	23 57	130	1,390	807	12	608 00	99 46
95	Port Colborne	10 52	8 00	79 00	70 00	111 40	278 92	274 19	4 73	275	1,901	1,467		1,525 68	112 33
96	Port Rowan	43 90	4 45	156 00	60 00		264 35	264 30	18 05	303	2,014	2,467		2,098 25	200 00
97	Primrose	18 30		92 30		28 00	138 60	131 25	7 35	146	976	1,480		608 00	45 11
98	Prescott	44 45		157 80	300 00	128 88	631 13	547 20	83 93	752	4,721	11,445	21	5,395 81	100 00
99	Renfrew	52 88		120 00	250 00	49 13	472 01	468 94	3 07	339	3,099	8,261	20	3,194 63	
100	Richmond Hill	45 61	6 50	122 25	80 00	10 00	264 36	242 37	21 99	225	2,966	3,429	28	1,950 00	
101	Ridgeway	1 97		78 90	25 00	40 07	145 94	144 28	1 66	120	1,038	2,477		764 86	

TABLE B.—Receipts and Expenditure, Assets and Liabilities of Public Libraries (Free) for the year ending 31st Decembr, 1901.—*Concluded.*

No.	Free Libraries.	Balance from previous year.	Members' fees.	Legislative grant.	Municipal grant.	Other sources.	Total receipts.	Expenditure.	Balance on hand.	Number of readers.	Number of volumes in library.	Number of volumes issued.	Number of newspapers and periodicals.	Assets.	Liabilities.
		$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.					$ c.	$ c.
102	Sarnia	194 36	.....	200 00	890 00	260 56	1,544 92	1,350 34	194 58	1,313	3,357	34,692	51	3,219 61	.....
103	Seaforth	8 83	12 25	177 35	326 76	75 84	601 03	597 66	3 37	371	4,561	12,528	15	4,253 37	800 00
104	Shelburne	1 50	16 25	137 40	150 00	22 33	327 48	327 48	....	210	2,287	4,830	20	1,866 37	7 53
105	Simcoe	248 74	.. ....	129 50	472 06	242 57	1,092 87	780 78	312 09	535	5,116	7,732	54	8,562 09	.. ..
106	Smith's Falls	.....	6 00	200 00	450 00	292 45	948 45	948 45	.....	665	4,495	13,887	26	2,085 00	185 20
107	Springfield	49	10 35	160 00	88 83	92 34	352 01	350 55	1 46	136	1,690	962	23	1,426 41	384 86
108	Stayner	5 43	....	77 00	50 00	25 66	158 09	144 89	13 20	208	1,490	3,740	....	998 15	....
109	Stouffville	6 92	....	78 40	165 00	48 74	299 06	257 54	41 52	335	3,692	7,023	29	4,043 00	.....
110	Stratford	246 91	11 00	200 00	800 00	225 26	1,483 17	1,156 18	326 99	1,526	6,237	40,594	39	4,976 99	.....
111	St Catharines	106 56	10 00	200 00	1,500 00	72 39	1,888 95	1,710 74	178 21	1,842	7 751	41,008	43	6,822 77	....
112	St. Mary's	69 49	34 05	145 70	200 00	320 80	770 04	719 21	50 83	600	4,634	12,003	23	2,450 00	300 00
113	St. Thomas	161 66	.....	197 60	650 00	407 33	1,416 59	1,250 09	166 50	1,084	7,490	20,252	48	4,950 00	.....
114	Sundridge	.....	3 95	89 55	75 91	.... ..	169 41	169 41	... ...	125	983	1,543	13	608 00	.....
115	Tara	8 65	24 76	71 40	75 00	11 75	191 56	190 16	1 40	225	1,901	4,493	18	1,927 94	.....
116	Thessalon	21 63	.....	200 00	160 00	213 17	594 80	593 51	1 29	130	1,925	1,964	13	1,205 95	245 97
117	Thornhill	.....	.....	86 50	40 00	66 49	192 99	192 99	.....	109	757	895	11	594 42	66 49
118	Thorold	32 67	.....	170 50	325 00	4 00	532 17	527 22	4 95	612	5,002	7,239	20	5,150 00	10 28
119	Toronto	920 41	.....	200 00	31,750 00	1,745 32	34,615 73	34,121 84	493 89	50,971	124,185	539,224	815	249,719 93	52,767 20
120	Tottenham	.....	.....	.....	200 00	16 60	216 60	216 60	.....	119	2,429	1,508	....	1,310 95	116 40
121	Trenton	.....	40 00	160 00	250 00	41 53	491 53	491 53	.....	730	1,650	9,924	67	1,632 80	266 13
122	Uxbridge	.....	20 00	133 15	225 00	411 07	789 22	789 22	.....	257	6,080	10,962	28	9,500 00	227 82
123	Wallaceburg	147 46	.....	101 66	250 00	49 10	548 16	409 04	139 12	392	1,569	7,753	22	1,148 04	33 33
124	Waterford	45 31	22 06	160 00	50 00	78 81	356 18	356 02	16	176	1,305	2,599	....	800 00	78 81
125	Waterloo	40 66	.....	158 10	300 00	22 50	521 26	478 41	42 85	520	7,013	8,884	27	5,790 92	.....
126	Watford	38	... .	195 10	150 00	74 41	419 89	419 49	40	257	2,434	5,690	24	1,600 00	164 67
127	Westford	1 82	1 00	67 60	10 00	33 00	113 42	109 03	4 39	138	1,295	318	....	1,071 00	30 00
128	Wiarton	28 36	21 75	160 00	155 40	10 00	375 51	349 69	25 82	260	3,067	4,109	20	2,363 14	245 81
129	Windsor	1,339 02	.....	200 00	2,000 00	4,210 40	7,749 42	7,268 82	480 60	1,298	10,195	47,358	61	9,262 07	.....
130	Wingham	9 50	121 00	188 70	235 00	2 00	556 20	543 94	12 26	184	3,368	4,988	50	2,290 00	.....
131	Wroxeter	8 34	7 25	160 00	55 00	32 88	263 47	261 72	1 75	192	4,101	4,570	.....	4,070 51	....
132	Wyoming	.....	20 90	.....	60 00	68 10	149 00	138 99	10 01	100	1,573	1,960	.....	1,000 00	.....
	Total	10,022 60	1,161 34	17,342 50	83,982 32	23,045 92	135,554 68	128,568 40	6 986 28	118,547	560,573	1,875,855	3,574	673,303 11	112,510 57

PROPORTIONATE NUMBER OF VOLUMES IN PUBLIC LIBRARIES.

Libraries With Less Than 250 Volumes.

Baysville, Bloomsburg, Calabogie, Haileybury, Inkerman, Matilda (Iroquois, P.O.), Munster, Ophir, Ottawa.—9.

Libraries With Over 250 and Less Than 500 Volumes.

Allan's Mills, Angus, Badjeros, Bancroft, Beachville, Berwick, Brucefield, Bruce Mines, Bunyan, Caistorville, Canfield, Cobden, Crysler, Dromore, Dundela, Elmwood, Finch, Freelton, Holstein, Maxwell and Feversham, Middleville, Millgrove, Molesworth, Mount Brydges, Nairn Centre, Newington, Port Burwell, Saltfleet (Stony Creek P.O.), Smithville, Thornloe, Unionville, Walton.—32.

Libraries With Over 500 and Less Than 1,000 Volumes.

Alma, Ancaster, Avonmore, Bayham, Binbrook, Bridgeburgh, Brigden, Burnstown, Cambray, Dalhousie (McDonald's Corners P.O.), Don, Dorchester, Douglas, Drumbo, Dryden, Easton's Corners, Emsdale, Fenella, Fort Francis, Glen Allan, Gore's Landing, Haliburton, Hanover, Harrington, Harrow, Hawkesville, Hepworth, Hillsburg, Kemble, Kintore, Madoc, Manitowaning, Maple, Marksville, Melbourne, Metcalfe, Minden, Mississippi, Mono Mills, Mount Albert, Newbury, New Dundee, Odessa, Otterville, Pakenham, Plattsville, Port Dover, Powassan, Primrose, Riversdale, Rodney, Rousseau, Shallow Lake, South River, Spencerville, Sprucedale, Sundridge, Sunnidale (New Lowell P.O.), Thornhill, Vankleek Hill, Vars, Wales, White Lake, York.—64.

Libraries With Over 1,000 and Less Than 1,500 Volumes.

Admaston, Algonquin, Atwood, Auburn, Beaverton, Belmont, Belwood, Bervie, Blyth, Bracondale, Carp, Cheapside, Chesterville, Clarksburg, Coldstream, Cookstown, Copleston, Copper Cliff, Creemore, Dufferin (Clanbrassil P.O.), Dutton, Elmvale, Ethel, Flesherton, Hensall, Highgate, Islington, Kemptville, Kingsville, Kinmount, Kirkfield, Lakefield, Lanark, Lion's Head, Little Current, Lynden, Mallorytown, Melancthon, Monkton, Morriston, Napanee Mills (Strathcona P.O.), North Augusta, Norwich, Oakwood, Omemee, Orono, Oxford Mills, Pinkerton, Port Carling, Port Credit, Port Stanley, Princeton, Richmond, Ridgeway, Ripley, Rockwood, Rosemont, Russell, Scotland, Shakespeare, Shedden, Stayner, St. Helen's, Thornbury, Trout Creek, Wardsville, Warkworth, Waterford, Wellesley, Westford, West Lorne, Wheatley, Williamstown, Zephyr.—74.

Libraries With Over 1,500 and Less Than 2,000 Volumes.

Acton, Alliston, Bloomfield, Bothwell, Brooklin, Burford, Camden East, Cargill, Cayuga, Chapleau, Chesley, Colborne, Coldwater, Comber, Delhi, Dresden, Dungannon, Erin, Floradale, Fordwich, Gorrie, Grantham (St. Catharines P.O.), Hagersville, Highland Creek, Holywood, Inglewood, Iroquois, Kars, Kinburn, Leamington, Lake Charles, Little Britain, Manotick, Merritton, Mildmay, Millbrook, Milverton, Mono Road, Nanticoke, Newburgh, North Bay, North Gower, Oil Springs, Palmerston, Parry Sound, Pembroke, Pickering, Port Arthur, Port Colborne, Port Perry, Queensville, Schreiber, Springfield, Sunderland, Tara, Thamesford, Thedford, Thessalon, Tilbury, Tiverton, Trenton, Wallaceburg, Waterdown, Woodbridge, Wyoming.—65.

Libraries With Over 2,000 and Less Than 2,500 Volumes.

Ailsa Craig, Arkona, Arnprior, Beamsville, Beeton, Belfountain, Bobcaygeon, Bradford, Burk's Falls, Burlington, Caledonia, Cannington, Chatsworth, Cheltenham, Claremont, Glencoe, Glenmorris, Grand Valley, Lucan, Manilla, Merrickville, Midland, Morrisburg, New Hamburgh, Newmarket, Niagara Falls South, Norwood, Parkhill, Picton, Port Rowan, Rat Portage, Romney, Sault Ste. Marie, Shelburne, Sparta, Tottenham, Underwood, Vandorf, Victoria (Caledonia P.O.), Watford, Woodville.—41.

Libraries With Over 2,500 and Less Than 3,000 Volumes.

Amherstburg, Arthur, Aurora, Baden, Bolton, Bracebridge, Brighton, Brussels, Claude, Drayton, Duart, Dundalk, Elmira, Ennotville, Essex, Fonthill, Fort Erie, Gananoque, Georgetown, Gravenhurst, Huntsville, Jarvis, Lancaster, Listowel, Markdale, Markham, Meaford, Richmond Hill, Streetsville, Tavistock, Tilsonburg, Walkerton.—32.

Libraries With Over 3,000 and Less Than 3,500 Volumes.

Aberarder, Almonte, Ayr, Caledon, Clifford, Cobourg, Cornwall, Deseronto, Dunnville, Fenelon Falls, Forest, Hespeler, Lucknow, Mount Forest, Oakville, Oshawa, Orangeville, Point Edward, Port Elgin, Renfrew, Ridgetown, Sarnia, Thamesville, Toronto Junction, Weston, Whitby, Wiarton, Wingham.—28.

Libraries With Over 3,500 and Less Than 4,000 Volumes.

Aylmer, Blenheim, Bowmanville, Brampton, Campbellford, Carleton Place, Ingersoll, Lindsay, Milton, Mitchell, Napanee, Paisley, Stouffville, Teeswater, Welland.—15.

Libraries With Over 4,000 and Less Than 5,000 Volumes.

Barrie, Belleville, Cardinal, Clinton, Collingwood, Durham, Embro, Exeter, Fergus, Galt, Goderich, Grimsby, Harriston, Kincardine, Orillia, Owen Sound, Penetanguishene, Perth, Port Hope, Prescott, Seaforth, Smith's Falls, Southampton, St. George, St. Mary's, Wroxeter.—26.

Libraries With Over 5,000 and Less Than 6,000 Volumes.

Alton, Chatham, Garden Island, Niagara, Niagara Falls, Preston, Scarboro', Simcoe, Strathroy, Thorold, Woodstock.—11.

Libraries With Over 6,000 and Less Than 8,000 Volumes.

Dundas, Kingston, Paris, Stratford, St. Catharines, St. Thomas, Uxbridge, Waterloo.—8.

Libraries With Over 8,000 and Less Than 10,000 Volumes.

Berlin, Brockville, Elora, Peterborough.—4.

Libraries With Over 10,000 and Less Than 20,000 Volumes.

Brantford, Guelph, London, Windsor.—4.

Libraries With Over 20,000 and Less Than 30,000 Volumes.

Hamilton.—1.

Library With Over 100,000 Volumes.

Toronto.—1.

TABLE C.—EVENING CLASSES IN DRAWING IN PUBLIC LIBRARIES.

Public Library.	No of Students.	Mechanical Course.
Peterborough	19	Machine Drawing.
Total	19	

III. ART SCHOOLS AND DEPARTMENTAL DRAWING EXAMINATIONS.

Tables D to H show the number of Certificates awarded from the commencement of this branch of the Education Department—1882 to 1902.

TABLE D.—Certificates awarded in Primary Art Courses from 1882 to 1902

Year.	Freehand drawing.	Geometry.	Perspective.	Model drawing.	Blackboard drawing.	Teacher's certificates.	Total.
1882	28	21	17	12	28	.....	106
1883	84	89	58	47	76	.....	354
1884	153	174	139	138	86	66	756
1885	214	529	301	168	198	122	1,532
1886	634	672	149	662	414	77	2,608
1887	643	1,204	428	444	122	103	2,944
1888	805	882	520	403	236	133	2,979
1889	1,002	961	394	470	494	187	3,508
1890	1,000	1,009	290	811	313	130	3.553
1891	1,085	1,569	292	746	422	164	4,278
1892	1,361	1,419	569	1,120	720	338	5,527
1893	1,769	1,277	439	876	392	220	4,973
1894	1,383	719	548	550	562	153	3,915
1895	1,813	1,429	658	1,311	991	341	6,543
1896	1,195	569	361	1,110	1,121	265	4,621
1897	716	500	212	704	516	114	2,762
1898	854	311	173	1,224	604	149	3,315
1899	1,062	465	168	1,128	1,170	160	4,153
1900	1,000	254	194	675	1,007	130	3,260
1901	1,366	87	59	695	431	29	2,577
1902	823	154	111	599	287	41	2,015
Total	18,990	14,294	6,080	13,803	10,190	2,922	66,279

TABLE E.—Certificates awarded in Advanced Art Course from 1883 to 1902.

Year.	Shading from flat	Outline from round.	Shading from round.	Drawing from flowers.	Ornamental design.	Industrial design.	Teacher's certificates.	Total.
1883	5	5	12	18	.....	.....	.....	40
1884	16	5	12	12	.....	.....	.....	45
1885	33	18	35	29	.....	.....	4	119
1886	35	24	19	48	.....	.....	3	129
1887	59	27	28	25	34	.....	14	187
1888	22	17	39	44	20	.....	9	151
1889	65	36	58	24	25	.....	14	222
1890	62	30	76	43	22	.....	15	248
1891	80	52	67	66	38	.....	23	326
1892	24	32	53	72	37	.....	13	231
1893	58	54	73	62	54	.....	13	314
1894	31	44	58	79	68	.....	24	304
1895	56	52	78	58	29	.....	11	284
1896	60	74	103	113	.....	29	17	396
1897	61	47	126	95	.....	41	18	388
1898	67	73	169	187	.....	44	18	558
1899	61	69	152	160	.....	57	22	521
1900	80	55	82	119	.....	31	17	384
1901	76	37	133	82	.....	85	13	426
1902	35	34	74	70	.....	67	10	290
Total	986	785	1,447	1,406	327	354	258	5,563

TABLE F.—Certificates awarded in Industrial Art Course from 1885 to 1902.

Year.	Modelling in clay.	Wood carving.	Wood engraving.	Lithography.	Painting on china.	Total.
1885	14	.....	.....	.....	.....	14
1886	11	7	.....	.....	.....	18
1887	8	2	.....	.....	.....	10
1888	10	3	1	1	9	24
1889	7	1	3	2	6	19
1890	7	4	.....	1	6	18
1891	5	2	1	.....	7	15
1892	2	1	.....	1	3	7
1893	5	2	.....	1	3	11
1894	4	2	.....	2	10	18
1895	5	3	2	6	18	34
1896	3	2	.....	3	30	38
1897	5	3	1	4	17	30
1898	7	5	.....	1	17	30
1899	9	14	.....	2	17	42
1900	17	14	.....	6	6	43
1901	9	12	.....	2	8	31
1902	6	9	.....	4	12	31
Total	134	86	8	36	169	433

TABLE G.—Certificates awarded in Mechanical Drawing Course from 1883 to 1902.

Year.	Advanced Geometry.	Machine drawing.	Building construction.	Industrial design.	Architectural design.	Advanced perspective.	Teachers' certificates.	Total.
1883	2	3	1	2	.....	3	.....	11
1884	1	1	1	1	.....	1	.....	5
1885	12	32	4	25	.....	12	4	89
1886	14	13	5	28	.....	14	3	77
1887	6	5	12	18	.....	6	2	49
1888	8	7	7	15	.....	11	2	50
1889	13	23	11	20	.....	12	3	82
1890	11	23	5	8	.....	12	2	61
1891	3	31	8	31	.....	28	2	103
1892	17	25	13	38	.....	15	2	110
1893	14	33	10	47	.....	35	10	149
1894	12	17	6	90	.....	9	3	137
1895	5	22	9	31	.....	12	3	82
1896	7	9	5	.....	9	12	3	45
1897	16	13	4	.....	6	15	.....	54
1898	6	19	2	.....	7	8	.....	42
1899	25	20	5	.....	7	18	.....	75
1900	14	8	12	.....	5	14	....	53
1901	21	18	2	.....	14	15	1	71
1902	18	15	6	.....	3	15	.....	57
Total.	225	337	128	354	51	267	40	1,402

TABLE H.—Certificates awarded for Extra Subjects from 1885 to 1902.

Year.	Drawing from the antique.	Shading from casts.	Architect designs.	Drawing from life.	Painting from life.	Painting oil colors.	Painting water colors.	Sepia.	Monochrome.	Pastel.	Sculpture in marble.	Photogravure.	Repousse work.	Industrial design.	Pen and ink.	Machine drawing.	Engraving on copper.	Crayon portraits.	Total.
1885	....	....	....	....	....	9	7	....	....	....	....	....	....	....	....	....	....	....	16
1886	....	....	....	....	....	12	7	....	....	....	....	....	....	....	....	....	....	....	19
1887	....	....	....	7	....	32	9	....	....	....	....	....	2	....	....	....	....	....	50
1888	....	....	....	15	12	25	14	13	1	....	2	....	2	....	....	....	....	....	84
1889	....	....	....	12	8	16	21	3	2	....	....	....	....	....	....	....	....	....	62
1890	....	....	....	7	4	28	18	10	4	....	....	....	....	....	....	....	....	....	71
1891	....	....	....	4	5	29	26	3	6	....	....	....	....	....	....	....	....	....	73
1892	....	....	....	2	6	21	16	7	1	....	....	....	....	....	....	....	....	2	55
1893	11	....	2	5	9	35	21	7	4	....	....	....	....	....	....	....	....	....	94
1894	11	....	2	8	6	29	16	5	7	....	....	....	....	10	....	1	....	....	95
1895	26	....	6	14	4	39	24	10	1	....	....	....	....	17	....	5	1	....	147
1896	14	....	....	12	6	34	38	6	1	2	....	1	....	13	1	1	....	....	129
1897	19	11	1	17	6	38	42	7	3	3	....	3	....	22	3	4	....	....	179
1898	22	12	....	12	9	37	28	7	6	6	1	6	....	15	4	6	....	....	171
1899	19	14	....	17	2	10	22	8	1	4	....	3	....	31	13	5	....	....	149
1900	29	30	....	13	4	17	10	12	5	5	....	3	....	14	10	4	....	....	156
1901	25	17	....	9	1	11	18	14	4	4	....	4	....	13	16	6	....	....	142
1902	22	16	....	13	1	19	28	17	2	....	....	....	....	17	12	4	....	....	151
Total	198	100	11	167	83	441	365	129	48	24	3	20	4	152	59	36	1	2	1,843

TABLE I. Certificates awarded to Art Schools, 1902.—Primary Course.

Name of School.	Number of students for examination.	Number of certificates.						Number of teachers' certificates.	Grants for certificates.
		Freehand.	Geometry.	Perspective.	Model.	Blackboard.	Total proficiency certificates.		
									$ c.
Hamilton Art School ...	80	15	12	6	13	15	61	3	53 00
Kingston "	13	2	1	4	2	4	13	.....	11 00
St. Thomas "	31	4	9	3	5	5	26	1	17 00
Toronto "	61	18	7	5	18	16	64	2	55 00
Total	185	39	29	18	38	40	164	6	136 00

TABLE J.—Certificates awarded to Art Schools, 1902.—Advanced Course.

Name of School.	Number of students for examination.	Number of certificates.						Number of teachers' certificates.	Grants for certificates.
		Shading from flat.	Outline from round.	Shading from round.	Drawing from flowers.	Industrial design.	Total proficiency certificates.		
									$ c.
Hamilton Art School ...	91	5	6	24	33	11	79	5	69 00
Kingston "	8	1	1	2	1	... ...	5	.... ..	5 00
St. Thomas "	15	1	.....	4	4	4	13	.....	10 00
Toronto "	73	20	21	25	11	10	87	3	65 00
Total	187	27	28	55	49	25	184	8	149 00

TABLE K.—Certificates awarded to Art Schools, 1902.—Mechanical Course.

Name of School.	Number of students for examination.	Number of certificates.						Grants for certificates.
		Advanced geometry.	Machine drawing.	Building construction.	Architectural design.	Advanced perspective.	Total proficiency certificates.	
								$ c.
Hamilton Art School	20	3	6	.....	1	2	12	12 00
Kingston "	3	.....	.....	.....	1	1	2	2 00
St. Thomas "	23	3	6	3	1	.....	13	13 00
Toronto "	12	3	.....	3	... .	3	9	9 00
Total	58	9	12	6	3	6	36	36 00

TABLE L.—Certificates awarded to Art Schools, 1902.—Industrial Art Course.

Name of School.	Number of students for examination.	Number of certificates.						Grants for certificates.
		Modelling in clay.	Wood carving.	Photogravure.	Lithography.	Painting on china.	Total proficiency certificates.	
								$ c.
Hamilton Art School	8	4	3	4	.....	3	14	14 00
Kingston "	6	.....	.....	.....	.....	3	3	3 00
St. Thomas "	6	1	3	.....	.....	2	6	6 00
Toronto "	1	1	.....	.....	.....	.....	1	1 00
Total	21	6	6	4	.....	8	24	24 00

TABLE M.—Certificates awarded to Art Schools, 1902.—Extra Subjects.

Name of School.	Number of students for examination.	Number of certificates.											Total certificates.
		Painting from life.	Painting oil colors.	Painting water colors.	Monochrome.	Sepia.	Drawing from life.	Pen and ink sketches	Shading from antique.	Shading from casts.	Industrial design.	Machine drawing.	
Hamilton Art School	37	....	1	4	....	14	1	2	2	9	5	....	38
Kingston "	1	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Thomas "	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	4
Toronto "	55	1	2	8	1	1	12	8	19	5	6	....	63
Total	100	1	3	12	1	15	13	10	21	14	11	4	105

TABLE N.—Certificates Awarded to Public and High Schools, Ladies' Colleges, etc., 1902.—Primary Course.

Name of school.	Number of students for examination.	Number of certificates.						Number of teachers' certificates.
		Freehand.	Geometry.	Perspective.	Model.	Blackboard.	Total proficiency certificates.	
Arthur High School	42	6	1		12	2	21	
Athens "	82	26	11	13	33	8	91	7
Belleville Albert College	9	2	2	3	3	2	12	1
" High School	32	11					11	
Blenheim Public School	20	5	3		3	1	12	
Brockville Collegiate Institute	81	28		5	23	15	71	3
Chatham Central School	48	9		1	12	6	28	1
" McKeough School	47	10			11		21	
Clinton Collegiate Institute	44	13	4	1	11	3	32	
Cobourg "	16	5	1	3	4	2	15	1
Comber Public School	35	12	9		11	5	37	
Collingwood Collegiate Institute	57	28		3	14	5	50	
Cornwall High School	1		1				1	
Deseronto "	62	10	3		11	2	26	
Forest "	12	9	1		4	1	15	
Goderich Collegiate Institute	2	2	2	2	2	1	9	1
Hamilton "	48	17			9	3	29	
" Central School District	96	28			15	2	45	
" Cammon St. School	45	19			10	2	31	
" Hess St. "	60	35			20	11	66	
" Murray St. "	33	7	1		2	1	11	
" Picton St. "	21	9			6		15	
" Queen Victoria School	108	55	17	19	21	16	128	6
" " Dist	216	38			16	7	61	
" Ryerson School	100	39	28	18	25	12	122	9
" Sophia St. "	59	13			1	1	15	
Harriston High School	43	12	2	4	9	7	34	1
London Collegiate Institute	243	38	8		28	19	93	
" Mr. Peel's School	12	4		1	5	2	12	
Markham High School	50	7	5	1	1	2	16	
Merrickville Public School	23	3				1	4	
Morrisburg "	4							
" Collegiate Institute	47	3		8	8	5	24	
Napanee "	49				23	6	29	
Newmarket High School	28	12	3		7	2	24	
Oshawa "	51	14		1	17	1	33	
Owen Sound Collegiate Institute	78	35	5	2	22	9	73	1
Peterborough Public School	45	23			3		26	
Picton High School	81	19	1	6	15	7	48	1
Port Dover High School	20	5			6	3	14	
Renfrew Collegiate Institute	21				8	4	12	
Richmond Hill High School	22	6			5		11	
Rodney Public School	22	6				2	8	
Seaforth Collegiate Institute	22	14			3	7	24	
Streetsville High School	16	5			3	1	9	
St. Thomas Alma College	8	5		1	4	1	11	
Toronto Havergal College	27	12			10	2	24	
" Harbord St. Coll. Inst	115	53			54	31	138	
" Jameson Ave. "	21	17			8	7	32	
" Metro. School of Music	6				1		1	
" Parkdale Public School	2	2			1	1	4	
Uxbridge High School	18	6			7		13	
Wallaceburg Public School	64	12			9	3	24	
Windsor Collegiate Institute	127	35	17	1	25	16	94	3
Total	2,641	784	125	93	561	247	1,810	35

TABLE O.—Certificates Awarded to High Schools, Ladies' Colleges, etc., 1902.—Advanced Course.

Name of school.	Number of students for examination.	Number of Certificates.						Number of teachers' certificates.
		Shading from flat.	Outline from round.	Shading from round.	Drawing from flowers.	Industrial design.	Total proficiency certificates.	
Belleville Albert College	11	.....	1	2	.....	1	4	.....
" High School	4	.....	.....	.....	.....	.....	.....	.....
Clinton Collegiate Institute	2	1	.....	2	.....	2	5	.....
London "	196	.....	.....	.....	.....	22	22	.....
" Mr. Peel's School	11	2	3	5	5	5	20	1
Markham High School	5	.....	.....	1	1	.....	2	.....
St. Thomas Alma College	4	2	.....	1	1	1	5	.....
Toronto Havergal College	19	.....	1	6	4	7	18	.....
" Metropolitan School of Music	6	.....	.....	.....	.....	.....	.....	.....
Windsor Collegiate Institute	26	3	1	2	10	4	20	1
Total	284	8	6	19	21	42	96	2

TABLE P.—Certificates awarded to High Schools, etc, 1902.—Mechanical Course.

Name of School.	Number of students for examination.	Number of certificates.					Total proficiency certificates.
		Advanced geometry.	Machine drawing.	Building construction.	Architectural design.	Advanced perspective.	
Athens High School	1	1	.....	.....	.....	1	2
Chatham Central School	3	2	.....	.....	.....	3	5
Cobourg Collegiate Institute	1	.....	.....	.....	.....	.....	.....
Goderich " "	2	2	.....	.....	.....	2	4
London, Mr. Peel's School	2	1	.....	.....	.....	.....	1
Markham High School	2	.....	.....	.....	.....	.....	.....
Morrisburgh Collegiate Institute	2	1	.....	.....	.....	1	2
Orillia Collegiate Institute	1	1	.....	.....	.....	.....	1
Peterboro' Public Library	15	.....	3	.....	.....	.....	3
Picton High School	1	.....	.....	.....	.....	.....	.....
Port Hope High School	1	1	.....	.....	.....	1	2
Windsor Collegiate Institute	2	.....	.....	.....	.....	1	1
	33	9	3	.....	.....	9	21

TABLE Q.—Certificates awarded to Ladies' Colleges, etc, 1902.—Industrial Art Course.

Name of School.	Number of students for examination.	Number of certificates.					Total certificates.
		Modelling in clay.	Wood-carving.	Photogravure.	Lithography.	Painting on china.	
Toronto, Havergal College	5	.....	3	.....	.....	2	5
Whitby, Miss Montgomery School	2	.....	.....	.....	.....	2	2
	7	.....	3	.....	.....	4	7

TABLE R.—Certificates awarded to Ladies' Colleges, etc, 1902.—Extra Subjects.

Name of School.	Number of students for examination.	Number of certificates.								Total certificate.
		Painting oil colors.	Painting water colors.	Monochrome.	Sepia.	Pen and ink sketches.	Shading from antique.	Shading casts.	Industrial design.	
Belleville, Albert College	10	4	2	....	....	.....	....	....	3	9
London, Mr. Peel's School	4	.....	2	1	....	.....	1	1	1	10
St. Thomas, Alma College	9	4	6	...	2	.....	....	1	....	13
Toronto, Havergal College	6	.....	3	....	....	.....	....	....	1	4
" Loretto Abbey	24	6	5	....	....	.....	....	....	....	11
" Miss Byrne's School	3	....	.....	....	....	.....	....	....	....	....
" Miss Baigent	1	.....	.....	....	....	.....	....	....	....	.....
Whitby, Miss Montgomery's School	3	.....	.....	....	....	2	....	....	1	3
	60	14	18	1	2	2	1	2	6	50

TEACHERS' FULL CERTIFICATES.

The following full certificates in the Primary and Advanced Courses were awarded in 1902.

1. Teachers' Full Certificate—Primary Course.

Name.	Address.	Name.	Address.
Males.		*Females.*	
Anderson, F. C	Athens.	Archibald, Lillian	Hamilton.
*Bowron, Ralph	Hamilton.	Balfour, Effie	Hamilton.
Clemens, Lewis	Toronto.	Brown, Annie	Athens.
Collins, Harry	Chatham.	DeMill, Evaline	Picton.
Cook, Harry	Hamilton.	Dunham, Rena	Athens.
*Corner, Edward	Hamilton.	Elvin, Veda	Hamilton.
Cumming, Norman S	Hamilton.	Fisher, Mamie	Belleville.
Davis, Frank A	St. Thomas.	Fitz Gerald, Geraldine	Hamilton.
Davis, Harry	Brockville.	Godard, Ruth	Hamilton.
Dunham, Charles	Athens.	Gow, Janet	Windsor.
*Edward, Wesley Grafton	Goderich.	Ham, Edith May	Hamilton.
Ferinhough, Edwin	Hamilton.	*Harris, Eva	Hamilton.
Green, Harold	Athens.	Murray, Elsie	Hamilton.
Hainsworth, Foster	Windsor.	Patterson, Alice	Hamilton.
Hare, Arthur F	Cobourg.	Patterson, Hattie	Brockville.
Hawthorne, Andrew	Hamilton.	Stewart, Eleanor	Athens.
Le Pan, Arthur	Owen Sound.	Taplin, Jessie	Athens.
Maynard, Carman	Toronto.	Wright, Bessie	Hamilton.
Mortimer, George	Brockville.		
Reid, Thomas	Windsor.		
*Ruttan, George	Harriston.		
Sharp, George	Hamilton.		
Wadland, Percy	Hamilton.		

*Honors.

2. Teachers Full Certificates—Advanced Course.

Name.	Address.	Names.	Address.
Males.		*Females.*	
Barron, John Jos	Hamilton.	La Forge, Carrie	Windsor.
Cumining, Norman S	Hamilton.	Price, Sadie	Toronto.
Knowles, Ernest	London.	White, Louise	Hamilton.
Maynard, Carman	Toronto.		
North, Sparling	Hamilton.		
*Smith, Lester V.	Toronto.		
Wilson, Herbert R	Hamilton		

*Honors.

The competition for the Gold, Silver and Bronze Medals has been discontinued.

Examination Papers.

The total number of examination papers sent out in 1902 was as follows:

Primary Course.		
Freehand	2,398	
Geometry	879	
Perspective	769	
Model Drawing	2,602	
Blackboard Drawing	2,556	
		9,204
Advanced Course.		
Shading, flat	147	
Outline, round	169	
Shading, round	188	
Flower Drawing	220	
Industrial Design	280	
		1,004
Mechanical Course.		
Advanced Geometry	57	
Machine Drawing	61	
Building Construction	33	
Architectural Design	16	
Advanced Perspective	41	
		208
Total		10,416

ART SCHOOLS.

Report for the Year Ending 31st December, 1901.

Only four Art Schools were open in 1901.

This may be attributed to the increased interest taken in teaching Drawing in Public and High Schools, Ladies' Colleges, etc.,—(Technical Schools have not reported).—See Tables D. to R.

1. Hamilton Art School.

The Report of the Hamilton Art School for 1901 shows that 204 pupils attended during the school year. The registered attendance, including day and evening classes, was 7,024. The Report says: "Our students continue to get responsible positions, and it seems that there are few cities in Canada or the United States where some ex-pupil of this School cannot be found and who is doing well; 1,729 individual students have attended the School since it was incorporated in 1886."

All of the twenty subjects comprising the Primary, Advanced, Mechanical and Industrial Courses were taught, except Wood Engraving, for which Drawing for Photogravure was substituted. In addition to the extra subjects prescribed by the Education Department, Mathematics, as required by architects, engineers, electricians, etc., was taught, and the school held an examination, and awarded certificates to the successful candidates.

The receipts, including Government grant, were $2,613.13; expenditure, $2,576.56. Balance on hand, $36.57.

2. Kingston Art School.

The Report of the Kingston Art School shows that the attendance of pupils fifteen years of age and over, who took at least 30 lessons, was 40, and only four of these took 40 lessons, the prescribed number. The number of certificates awarded was as follows:

Primary Course, 13 Proficiency Certificates.
Advanced Course, 5 Proficiency Certificates.
Mechanical Course, 2 Proficiency Certificates.
Industrial Art Course, 3 Certificates.

Their Report shows that the following trades and professions were represented in the Evening Classes: Architects, boat-builders, carpenters, clerks, cheese-makers, engineers, electricians, machinists, shipwrights, wood and iron-workers and teachers.

The receipts, including Government grant, were $574.45; expenditure, $574.45.

3. London Art School is temporarily closed.

4. Ottawa Art School is temporarily closed.

5. St. Thomas Art School.

The Report of the St. Thomas Art School shows that 54 pupils took from 30 to 79 lessons.

The following trades and professions were reported : Boiler-makers, carpenters, clerks, engineers, machine apprentices, machinists, painters, students, teachers and tinsmiths.

This School is incorporated with St. Thomas Public Library.

The receipts and expenditure are included in the Report of the Public Library.

6. Toronto Art School.

The Report of the Toronto Art School shows that the total number of names on the roll for the session was 215; aggregate attendance, 9,800.

The following trades and occupations were represented:

Architectural Students	19	Decorators	4
Lithographers	28	Jewellers	2
Photo Engravers	10	Art Ironworkers	1
Clerks	15	Piano Stringers	1
Designers	8	Illustrators	3
Stenographers	7	Sign Writers	2
Engravers	9	Carpenters	2
School Teachers	6	Music Teachers	2
Photographers	2	Pattern Makers	2
Piano Action Finishers	1	Portrait Painters	2
Retouchers	3	Bookkeepers	3
Wood Carvers	4	Draughtsmen	1
Glass Stainers	2	Harness Maker	1
Reporters	2	Manufacturers' Agent	1
Printers	2	Students	69
Crayon Artists	4		

many of whom are studying with the intention of taking up some branch of art industry.

A course of Illustrated Lectures, in conjunction with the Ontario Society of Artists, was given and fairly attended by the students.

The receipts, including Government grant, were $3,625.59; expenditure, $3,496.96. Balance, $128.63. Liabilities, $407.65.

7. Ontario Society of Artists.

The Report of the Ontario Society of Artists shows that one hundred and fifty pictures were hung at their Exhibition in March, and 303 pictures were collected and exhibited at the Industrial Exhibition in Toronto.

The Advanced Life Class of the Royal Canadian Academy has been continued, under the management of a joint committee, and the Saturday Night Composition Class has met weekly during the season.

An annual prize of $200 was awarded at the Annual Exhibition for the best work of the year in the same manner as the two pictures for the Provincial Art Gallery are selected—that is, by a majority vote of the members of the Society.

The total receipts, including Government grant, were $4,219.02; expenditure, $2,196.67. Balance on hand, $2,022.35.

8. Provincial Art Gallery.

The following Pictures were purchased during the year 1902:

*1. Pictures Selected by the Ontario Society of Artists.

Cutts, W., "Squally Weather in the Channel"; Smith, W., "November."

†2. Pictures Selected by the Civic Art Guild.

Carlyle, Florence, "The Tiff"; Hagarty, C. S., "Sorting Fish"; Jefferys, C. W., "Pine Woods"; Manly, C. M., "The Sun Burns Down"; Reid, Mary H., "Pines at Sunset"; Staples, O. P., "Summer"; Tully, S. S., "Flower Market."

These pictures were selected by a Committee of the Civic Art Guild.

LITERARY AND SCIENTIFIC INSTITUTIONS.

1. Hamilton Scientific Association.

The Report of the Hamilton Scientific Association for the year ending 30th April, 1901, shows that they have 175 members. Thirty-three meetings were held, at which the following papers were read and discussed:

Inaugural Address—Dr. S. A. Morgan, President; Birds of New Zealand—Dr. D. V. Lucas; Metric System of Weights and Measures—E. B. Biggar; Matter at Low Temperature—Prof. Lang; The Manufacture of Iron—C. Fox; Life and Culture of Pre-historic Man—Prof. MacCallum; Kingsleys Country of North Devon—A. H. Baker; Natural History Notes—Wm. Yates; Astronomy—D. B. Marsh; The Sun—D. B. Marsh; Chemistry of Creation; A Trip to Venus—Wm. Bruce; The Atmosphere—Rev. R. E. M. Brady; The Planet Neptune—D. B. Marsh; The Weather and Earthquake

* In 1895 the Act made provision that two pictures of the value of $200 should be paid for out of each annual grant to the Ontario Society of Artists, said pictures to become the property of the Provincial Art Gallery.

†In 1897 the Minister of Education entered into an agreement with the Ontario Society of Artists that if the Society would keep one of the large galleries in the Educational Museum filled with the most recent work of its members, pictures to the value of $800 would be purchased annually for the Provincial Art Gallery.

Phenomena—R. F. Stupart; The Moon—H. B. Whitton; The Witness of the Stars—Rev. F. E. Howitt; Geological Notes—Col. C. C. Grant; Coral Reefs, Ancient and Modern—Col. C. C. Grant; Geological Notes, continued—Col. C. C. Grant; Notes on Evolution—Col. C. C. Grant; Picture Composition—J. S. Gordon.

The Astronomical Section, with a membership of forty, is now amalgamated with the Society.

The Geological Section has made large additions to the museum, and sent a large number of fossils to other museums, including Ottawa and the British Museum.

The Camera and Biological Sections have done excellent work.

The Museum is open free to the public every Saturday, when conversational lectures are given by Col. Grant and others.

The Journal and Proceedings of the Association for 1901-2, recently published, is well illustrated, and contains some practical papers on various branches of science.

The Library contains a large list of valuable scientific exchanges from Europe, Asia, Africa, America, and Australia.

Receipts, including Government grant, were $689.75; expenditure, $521.69. Balance on hand, $168.06.

2. Ottawa Literary and Scientific Society.

The Report of the Ottawa Literary and Scientific Society for the year ending 30th April, 1901, shows that there are 290 members. The Lecture Course was opened by a largely-attended conversazione, followed by a course of Lectures, viz.:

Royal Game of Golf—Prof. E. E. Prince; Modern Types of Danger Warnings on the Coast—Lieut.-Col. W. P. Anderson; Fauna of the Chilliwack Valley—J. M. Macoun; Alfred the Great—O. J. Jollife; The Pendulum—Dr. O. J. Klotz; Conciliation and Arbitration—W. L. M. King; Ions—Prof. E. Haanel; The Marconi System—D. H. Keeley; The Teachings of Sartor Resartus—G. R. Maxwell; Impeccancy of the King—Dr. Chas. Morse.

The Library is well patronized; 302 volumes were added during the year, making a total of 4,854 volumes. The issue was 5,902.

The Reading Room is well patronized. It contains over fifty leading magazines, reviews, and newspapers.

During the year 180 publications, including pamphlets, charts, magazines, newspapers, etc., were received in exchange, the Spanish, French and German languages being well represented. The total issue of magazines for the year was 1,509.

Receipts, including Government grant, $1,246.25; expenditure, $1,212.76. Balance on hand, $33.49.

3. Institut Canadien Francais d'Ottawa.

The Report of the Institut Canadien Francais d'Ottawa for the year ending 30th April, 1901, shows that Conversational Classes were held weekly from November to May. The subjects studied embraced Agricultural Chemistry, Nature Studies, Electricity, French and English Literature, etc. In addition public lectures by distinguished men from neighboring cities were given, as follows:

"The Regiment of Carignan," Benj. Sutte; "The French Idea in the Province of Quebec and the Loyalty of the French Population to the British

Flag," J. A. Mousseau; "The Future of the French Lauguage on the American Continent," Dr. L. M. Pelletier; "The Dangers to which the French Language is Exposed," Baron St. Elmo de Champ; "Some of the Thoughts of the Great Poet, Victor Hugo," Rev. Father Lejeune; "The Renowned Painters and Young Children," illustrated with colored lantern slides, J. B. Lagace; "The Indian Stream Republic," F. J. Audet; "The Characteristic Moral Traits of Our Forefathers the Normands," Hugues Leroux; "The Secret of the Great Moliere in Producing Laughter," Rev. Father Lejeune; "The Habits of a Class of Coleoptera (scarabea)," A. D. Decelles.

Arrangements have been made for a Lecture on the X-rays by Mr. A. Dion and a Lecture on Elocution by Mr. Prad.

The Library has been successful this year, the books are in glass cases, in excellent order.

The Reading Room is well patronized. It is supplied with twenty-five daily papers in French and English, and 45 reviews, etc., also reports from Scientific Societies in Canada, the United States and the Continent of Europe.

Receipts, including Government grant, $1,390.37; expenditure, $1,999.78. Balance due, $609.41.

4. St. Patrick's Literary and Scientific Association, Ottawa.

The Report of the St. Patrick's Literary and Scientific Association for the year ending 30th April, 1901, shows that they had over one hundred members, with a Library containing 1,342 volumes, which were well circulated. They expended over $150 for books and $50.95 for Reading Room. Their assets were $8,205.49; liabilities $2,500.

Since their last Report, they have moved into a new and spacious building which cost, with fittings, furniture, etc., nearly $30,000, and have paid off liabilities.

The building is very complete, with modern appliances for heating, light, etc., large lecture rooms, separate rooms for Library and Reading Room. The Library has glass cases for books, which are in good order. The Reading Room is supplied with three daily newspapers, five weeklies and eight magazines and reviews, and is well patronized. They now have over 300 members, who take great interest in the progress of the Association. They recently realized about $3,600 from an entertainment and a concert, enabling the Association to pay off all the liabilities shown in their last Report.

5. Ottawa Field Naturalists' Club.

The Report of the Ottawa Field Naturalists' Club for the year ending 30th April, 1901, shows that they have 258 members, and the Club is doing excellent work. Their excursions are very successful. Since Nature Study has become popular, teachers take an interest in obtaining information given by experts at the excursions and sub-excursions.

The Winter Soirees held during the winter were well attended by large audiences. The Lecturers included several gentlemen from other cities. The following programme was carried out:

President's Address "On the Extinction of Useful Animals in Modern Times," Dr. Robt. Bell. At the opening meeting short addresses were given by Dr. J. A. MacCabe, Prof. Macoun, and others, followed with a conversazione and exhibition of Natural History objects, etc.; The Relation of Geology to Geography (illustrated by lantern slides)—Prof. R. A. Daly;

Whales and Whale Hunting (illustrated by lantern slides)—Prof. E. E. Prince; The Natural History of Honey Bees—Percy H. Selwyn; The Ferns of Canada (illustrated by lantern slides)—Rev. Dr. R. Campbell; The Present Position of the Evolution Theory—Prof. E. W. MacBride; Native Birds: Their Characteristics and Habits—W. E. Saunders; Notes on the Arboretum at the Central Experimental Farm, Ottawa—W. T. Macoun.

Reports from the Geological, Entomological, Botanical, Zoological and Ornithological branches were presented at these meetings.

*The Ottawa Naturalist, the official organ of the Club, was issued every month. It contains maps, botanical plates, and illustrations of paleontology. The fifteenth volume, just published, contains over fifty papers.

The Library of the Club is in the Ottawa Normal School.

Receipts, including Government grant, $732.40; expenditure, $602.12. Balance on hand, $129.28.

6. Ottawa University Scientific Society.

The Report of the Ottawa University Scientific Society for the year ending 30th April, 1901, shows that the members met once a week to discuss scientific papers prepared by one of their confreres.

Two public lectures were given, viz., "Ireland," illustrated by over one hundred lime-light views, Mr. Topley; "Marconi Method of Wireless Telegraphy," Rev. Dr. H. O. Boyle.

An annual excursion was held to visit Kirk's Ferry, where the study of the formations and lay of up-heaved strata greatly interested those interested in geology.

They have a small, but good, Library of scientific works, a Coll lantern, and an excellent camera, with outfit.

The members of the Society are very enthusiastic in their scientific pursuits.

Receipts, including Government grant, $172.70; expenditure, $172.70.

7. Toronto Astronomical Society.

The Report of the Toronto Astronomical Society for the year ending 30th April, 1901, shows that papers were read as follows:

Astronomical Notes of the Past—G. E. Lumsden; Making of a Great Telescope—Dr. J. A. Brashear; The Planets, illustrated—Rev. R. Atkinson; Phenomena of Polarized Light—G. R. Anderson; The Spectroscope in Astronomical Research, illustrated—A. F. Miller; The Pressure of Light in its Astronomical Aspect—Dr. G. F. Hull; The Apex of the Sun's Way—J. A. Patteson.

Prof. de Lury gave a special course of Lectures, as follows:

1. The Cosmos as Understood by the Ancients.
2. The Development of the Copernican Theory.
3. The Newtonian Advance to Physical Astronomy.
4. Special Consideration of the Solar System.
5. La Place's Nebular Hypothesis and Stellar Evolution.

They paid $339.94 for telescope, etc., in 1901.

Receipts, including Government grant, $761.25; expenditure, $473.56. Balance on hand, $267.67.

8. Toronto Canadian Institute.

The Report of the Canadian Institute for the year ending 30th April, 1901, shows that it has now 204 members. During the past session twenty

* NOTE.—This publication should be in every Public Library in the Province. (S.P.M.)

five papers were read, classified as follows : Geology, 2 ; Forestry, 3 ; Topography, 1; Exploration, 2; Physics, 1; Ornithology, 1; Colour Photography, 1; Mining, 1; Mineralogly, 1; Astronomy, 2; Ethnology, 1; Morphology, 1; Biology, 1; Arbitration, 1; Literature, 1; Economics, 1; Botany, 1; History, 1; Miscellaneous, 2.

Fourteen papers were read in the Biological Section, and several summer excursions held.

The Librarian reports that the number of exchanges received during the year is 2,273, and the number of donations 250; number of volumes purchased, 33; the number of books and periodicals taken out during the year, 1,531. The exchanges received, as classified by the Librarian, were from Great Britain and Ireland, Canada, United States, France, Austria, Italy, Germany, Holland, Belgium, Sweden, Norway, Denmark, Russia, Spain, Portugal, Switzerland, India, Australia, South America, Mexico, Japan, Java, Africa, Straits Settlement, China, New Zealand, Jamaica.

Receipts, including Government grant, $2,769.03; expenditure, including small balance on hand, $2,769.03.

9. Historical Societies.

The following grants have been paid to Historical Societies:

Lundy's Lane Historical Society	$100
" " Special Grant for Printing	100
Niagara Historical Society	100
*Ontario Historical Society	600
Peterborough Historical Society	100
Wentworth Historical Society	100

APPENDIX G.—REPORT OF THE LIBRARIAN OF THE EDUCATION DEPARTMENT, 1902.

To the Honorable Richard Harcourt, M.A., K.C., Minister of Education, for the Province of Ontario:

PART I.—THE EDUCATION LIBRARY.

I. The Library of the Department and Its Functions.

For the information of enquirers, as to the nature and class of literature of which this Departmental Library is composed, I would here repeat the information which was embodied in my Report of last year:—

Although not a general Library, in the ordinary acceptation of that term, yet the Departmental Library has a fair average collection of miscellaneous Books in General Literature and History. Its special function, however, is to provide an abundant supply of such Books on educational subjects as are in constant demand by the Students of the Normal School, and, to a certain extent, books of reference for the use of Masters of Public Schools, High Schools and Collegiate Institutes, as well as of Public School Inspectors and University Students, etc.

The special subjects in regard to which the Library is well supplied with Books "up-to-date," are the following:—

Kindergarten and Kindred Subjects;

School Boys and Girls and their Education;

Human Knowledge—Pursuit of it and Self Education;

* The Pioneer Historical Society formerly paid $100 per annum, has now been merged in the Ontario Historical Society, increasing their grant from $500 to $600.

Juvenile Education—As well as Juvenile Crime and Punishment;
General Education—School Management and Methods;
Psychology and Kindred Subjects;
Conduct, Character and Self-Help;
Noted Educationists and Educators;
Women,—Their Education, Duties, etcetera;
Temperance, Hygiene and Health;
General Science, Chemistry, Mathematics, etcetera;
Physiology and Kindred Subjects;
Physical Education,—Gymnastics and Calisthenics;
Natural History,—Various Departments;
Astronomy and Kindred Sciences;
The English Language,—Words, etcetera;
General English Literature;
Miscellaneous Literature, etcetera;
School House Architecture and Arrangements;
Education in Ontario and Other Canadian Provinces;
Education in Great Britain and Ireland;
Education in the Various British Possessions;
Education on the Continent of Europe;
Education in other Countries;
Industrial Education in Various Countries;
Education in the United States, (five divisions);
Roman Catholic Education and the Christian Brothers;
Sunday Schools and Religious Education;
Geography and Description of Various Countries;
Dictionaries and Books of Reference;—Various;
Educational and Literary Biography;
Miscellaneous Biography, English, Scotch, Irish;
French, German, Italian and American Biography, etcetera;
Female Biography;
General and Miscellaneous History;
Political Economy, Philosophy and Kindred Subjects;
Rhetoric, Elocution, Reading, Composition, etcetera;
Logic and Reasoning;
Miscellaneous Stories of Practical Life, etcetera.
Magazines, Reviews and other Periodicals.

II. Catalogue of Books Relating to Education, etcetera.

The whole of the Books in the Library, on the foregoing Subjects, have been arranged and classified, and their titles have been systematically given in sub-divisions, for easy reference, in a Departmental Catalogue, extending to 268 pages. This Catalogue was published in 1897, and is available to all parties, who are entitled, or who may desire, to obtain Books from the Library.

III. The Ordinary Business Operations of the Library.

The ordinary duties devolving upon the Librarian and his Assistant, are:—

1. The giving out, for a prescribed time, of Books on Teaching, Education and kindred subjects, which form the topics of Instruction in the Normal and Model Schools, directly connected with the Department here in Toronto. These Books are loaned to Students of the Normal School, and to the Masters and other Teachers. To those persons who make spe-

cial requests for particular Books, they are also loaned on similar terms, as provided for in the Official Regulations for the government of the Library.

2. A record of each Book, thus given out, is made in a Register, prepared for that purpose, in which the parties borrowing sign their names in the form of a receipt, and as a guarantee that they will return the Book in a given time, and in good order. In case of damage, the Book is either paid for, or a new one is given in its place.

IV. Duplicate Books—How Disposed Of.

As intimated last year in my Report, a large number of duplicate Books, which had accumulated in the Library, were divided into appropriate lots, and were sent to the Libraries of the Normal College at Hamilton and the Normal School at London. A supply of Books, of various kinds, had already been sent, some years previously, to the Normal School at Ottawa. All accumulations of duplicate Books, Pamphlets, or Magazines, are now laid aside, so as to be sent, at future times, to the Normal Institutions named,—care being taken to only send such duplicates as would prove of interest and value to these establishments.

V. Yearly Record of Books Loaned to Students and Others.

It is a matter of interest to note the number of Books which are taken out by students monthly, in each year. The number thus taken out varies, as the number of students in attendance in each year varies, and as the special subjects, being taught, require certain Books to be consulted:

Given out in month of	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
January	159	334	375	354	573	699	608	484	526	518	542
February	431	764	609	804	1,040	1,370	928	868	948	1,124	959
March	617	944	585	1,034	1,270	1,702	1,393	1,158	1,454	1,563	1,084
April	467	897	991	627	1,021	1,111	882	848	766	997	1,187
May	546	814	694	633	843	923	969	895	911	867	832
June	332	461	332	354	400	609	677	518	540	576	510
July	69	54	47	223	32	254	265	256	231	317	236
August	100	97	48	100	16	184	233	329	224	176	233
September	526	370	344	415	295	514	410	489	432	411	538
October	1,263	1,148	1,010	1,130	1,170	1,200	1,043	1,018	1,312	1,058	958
November	1,136	1,004	1,039	1,063	1,268	1,099	1,024	1,034	1,229	1,014	1,158
December	693	559	540	597	752	704	464	549	547	516	535
	6,339	7,446	6,614	7,334	8,680	10,369	8,896	8,447	9,120	9,137	8,872

VI. Number and Subjects of the Books Purchased in the Years 1892-1902.

Year.	*Volumes.*	*Subjects.*
1892	388	
1893	290	
1894	257	
1895	430	Education.
1896	495	Science.
1897	476	Literature.
1898	533	Text books.
1899	315	Miscellaneous.
1900	275	
1901	164	
1902	304	

VII. The Number of Books Purchased in 1900-1902 was as Follows :

Subjects.	1900	1901	1902
Pedagogy	23	29	40
Science (Political Economy, Anthropology, etc	24	8	11
Philosophy and Ethics	5	12	9
Industrial and Domestic Science	23	2	8
Poetry	18	1	1
Fiction, or Practical Life	26	5	9
Literature	78	3	46
Text Books	65	32	45
Miscellaneous (History, Biography, Reference Books)	13	72	102
Natural History and Nature Study	.....	.....	33
Totals	275	164	304

VIII. Number of Books Donated to the Library in 1898-1902.

—	1898	1899	1900	1901	1902
Text Books	49	74	65	111	41
Miscellaneous	.....	.....	7	13	54
Totals	49	74	72	124	95

IX. Newspapers and Magazines Received During the Years 1900-1902.

—	1900	1901	1902
Number of daily and weekly newspapers	86	91	88
" magazines and other periodicals	100	102	100
Totals	186	193	188

X. Books, Magazines, Etc., Bound During the Years 1893-1902.

1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
109	136	141	98	99	90	94	37	83	71

Also twenty volumes were sent to the Binder to have the Official Stamp of the Education Department affixed.

XI. Official Reports on Education in Different Countries Received During 1901-1902.

—	1901	1902
From Great Britain and Ireland	26	43
Various Provinces of the Dominion	42	42
Australasia :		
Victoria	.....	5
New South Wales	1	3
South Australia	.....	1
Western Australia	1	1
Queensland	1	.....
Tasmania	1	1
New Zealand	9	29
Other British Possessions :		
Mauritius	.....	1
Cape of Good Hope	1	1
Natal	1	1
Jamaica	2	1

XI. Official Reports on Education.—Continued.

—	1901	1902
Other British Possessions:		
Barbadoes	1	1
British Guiana	1	2
Straits Settlements	1	
Hong Kong		1
Various States of the American Union	117	54
Miscellaneous:		
Brazil		3
Argentine Republic	16	12
Uruguay	1	
Costa Rica		
France		8
Germany	1	
Portugal		2
Switzerland	4	6
Italy	19	29
Mexico		1
Japan	1	
	247	248

XII. Miscellaneous Pamphlets Received in 1901-1902.

—	1901	1902
From various countries	80	75
From the Dominion of Canada and Provinces	28	74
	108	149

XIII. Various Catalogues of Historical and Other Rare Books.

I can add nothing to what I have said previously, as to the desirability of printing the interesting and valuable manuscript Catalogues, which have been prepared with that view. In my year's Report for 1900, on this subject, I said:—

"1. Education.—The catalogue of books relating to various subjects of Education and kindred subjects for the use of students, teachers and others has been reprinted. The present catalogue is a reprint, with large additions, of a catalogue of a more contracted character, printed in 1886.

"2.—History of Canada.—A supplement of the catalogue of our very extensive variety of books on the Dominion of Canada and its various Provinces, printed in 1890, was partly revised in 1899, and can be completed at any time for reprinting, when so desired. The various Historical Societies avail themselves of this collection of historical books—the members of which express themselves greatly pleased with the extent and variety of the books in this collection.

"3. Miscellaneous.—As stated in my Report of 1896, we have Catalogues in manuscript of, (1) books on the classics and kindred subjects, (2) of works of art, and (3), of a number of rare text-books, dictionaries, etc., presented to the Library by the venerable Dr. Scadding, ex-Master of Upper Canada College.

"4. I would again recommend that the revised Catalogue of Books on the various Provinces of the Dominion be reprinted. At present, reference has to be made to the old Catalogue of 1890—since then we have very nearly doubled the number of Books on this most interesting subject—many of them, and especially of the new collection, of rare value. Of this older collection, not less than fifty-four volumes were printed before the beginning of the nineteenth century. The Canadian part of the Library is rich in poetry written by persons in the Dominion of Canada."

PART II. HISTORIOGRAPHY.

1. Documentary History of Education in Upper Canada; Volume IX., 1850-1851.

Volume IX. of the "Documentary History of Education in Upper Canada," completed this year, deals largely with the educational events of an important transitional year. It narrates in detail the circumstances which led to the passage of the Public School Act of 1850, which has justly been regarded as the "Charter of our School System." The Volume also gives, in full, the voluminous and somewhat acrimonious correspondence which took place in 1850 and 1851 between the Honourable and Right Reverend Doctor Strachan, Bishop of Toronto, and the Imperial and Provincial Governments on the establishment of a proposed "Church University"—subsequently named by the Bishop as "Trinity College University."

The University Acts of 1849 and 1850 were only passed after a prolonged struggle, which dated back to the time when the previous effort had been made to settle this very troublesome "University Question" in 1837.

"A Brief History of King's College in Upper Canada, From its First term in 1797 to its Suppression in 1850," is the title of a document originally printed in a separate form, chiefly for circulation in England, by the promoters of Trinity College. It has no signature attached to it; but, having been favoured with the loan of a large Volume of Manuscripts, entitled: "Original Documents: Church University," I found that this original Document is in Bishop Strachan's well-known handwriting, with sundry erasures and additions,—the most important of which I have reproduced in the copy, as reprinted in this Volume.

The Ninth Volume of this "Documentary History" also contains a record of the Proceedings of certain Churches, representing existing Colleges, on the University Question of the day.

This Volume also includes two important Documents by Doctor Ryerson:

1. An Appeal to the Inhabitants of Upper Canada in Favour of Free Schools.
2. Annual School Report for the year 1850.
3. Also, a Series of Circulars, explanatory of the Provisions of the New School Law of 1850, and various suggestions as to how these Provisions of the Act could be most satisfactorily brought into successful operation.

I have sought thus to group into separate Chapters the Educational Proceedings of the several Public Bodies. In many of the cases there did not seem to be any immediate connection between the Proceedings of the Legislature and those of the other Bodies, having a separate organization. Yet, it very frequently was found, that there was a sort of interdependence the one on the other, which influenced their separate action, more or less.

In thus grouping the several Chapters, in the Volume, I have endeavoured to give a separate, yet a connected narrative, of the Educational Events of the years named, arranging that narrative in what I believed to be the order of its interest and importance,—carefully avoiding repetition, or overlapping, of topics, or subjects.

I need only refer here to the great difficulty which has been experienced in collecting from miscellaneous and, in some cases, from unexpected sources, the materials, which go to make up these several Volumes, and then arranging that material in somewhat like systematic order, so as to give a comprehensive birds-eye view, for the specified years, of the entire collection of separate Educational Papers and Documents as a whole.

PART III. SCHOOL ROOM DECORATION, ETC.

I have procured a few more illustrations for the proposed publication on School Room Decoration. These illustrations, including some from notable books on English History, now number about fifty. In that collection we have over forty photographs of statues and monuments erected in different parts of the Dominion and elsewhere. These, with from fifteen to twenty pictures illustrative of British history, taken from the illustrated edition of Green's "History of the English People"—as suggested to me by a prominent English publisher,—would make, with the appropriate letter press, a most attractive compilation of Canadian History in brief, which might serve the double purpose of suggesting to School Trustees appropriate subjects for School Room Decoration, and also as a Pictorial aid to Teachers, in giving instruction in Canadian history.

This matter of School Room Decoration has lately attracted a good deal of attention, especially in the United States, notably in New England and in the adjoining State of New York. The Regents of the University of that State have, quite recently, published an elaborate volume of 430 pages, devoted to the double subject of "Travelling Pictures and School Room Decoration." This volume contains about one hundred illustrative pictures, relating to History, Art, etc.

The subject of beautifying the School Rooms in English Schools has also engaged the attention of practical educationists in England, and efforts are now being made to promote this movement generally.

As already reported, I have made arrangements with the Grand Trunk and Canadian Pacific Railway Companies, whereby the large pictures of various places in the Dominion, which these companies have published, may be made available by Trustees for School Room Decoration.

Another effective form for such decoration is the grouping together of a number of the birds of life size, which are coloured from nature, and which are now available from collections of such birds published in the United States. I have already procured a private collection as samples.

Coloured pictures of Indians of the various tribes in the Northwest can also now be procured, and, as grouped, may be made to present very striking and effective pictures. They might be made the means of interesting children in Geographical Lessons, relating to that part of our Dominion. I have also procured samples of these coloured pictures.

Two very striking pictures in colours of, (1), the "Discovery of Lake Champlain," and (2) the "Battle of Queenston Heights"—prepared by Mr. J. D. Kelly of this city, were referred to in my last Report as available for School Room Decoration.

I may mention also, that, arising out of the notable historical events of this year, connected with the Coronation of His Majesty King Edward VII., a number of admirably coloured likenesses of the King and of Queen Alexandra can now be procured, and made available for School Room Decoration.

Manners of School Children

At the request of His Honour the Lieutenant-Governor, I have prepared a resume of the regulations in force in this Province, and elsewhere, on the subject of School Room Discipline. The Governor has informed me that he has transferred the papers on this subject to you, as Minister.

J. GEORGE HODGINS,
Librarian and Historiographer of the Education Department of Ontario.

Toronto, December, 1902.

APPENDIX H.—ADMISSION OF CANDIDATES TO COLLEGIATE INSTITUTES AND HIGH SCHOOLS.

Name of School.	Entrance Examination, June, 1902.	
	Examined.	Passed.
Collegiate Institutes.		
Aylmer	99	78
Barrie	118	87
Brantford	189	156
Brockville	97	81
Chatham	157	151
Clinton	59	51
Cobourg	72	59
Collingwood	87	52
Galt	141	109
Goderich	97	83
Guelph	117	108
Hamilton	573	427
Ingersoll	87	71
Kingston	211	184
Lindsay	37	22
London	336	306
Morrisburg	99	64
Napanee	105	60
Niagara Falls	61	57
Ottawa	359	293
Orillia	93	71
Owen Sound	163	119
Perth	113	76
Peterborough	170	121
Renfrew	139	109
Ridgetown	54	42
St. Catharines	81	65
St. Mary's	107	84
St. Thomas	194	132
Sarnia	144	119
Seaforth	74	58
Stratford	209	160
Strathroy	139	102
Toronto (Harbord St.)	372	252
" (Jameson Ave.)	184	123
" (Jarvis St.)	248	168
Whitby	61	48
Windsor	140	126
Woodstock	155	111
High Schools.		
Alexandria	89	53
Almonte	48	38
Arnprior	72	50
Arthur	54	41
Athens	108	72
Aurora	54	42
Beamsville	42	36
Belleville	212	160
Berlin	96	86
Bowmanville	59	49
Bradford	39	33
Brampton	74	53
Brighton	43	34
Caledonia	54	44
Campbellford	73	37
Carleton Place	70	49
Cayuga	45	36
Colborne	47	40
Cornwall	136	71
Deseronto	54	35
Dundas	64	44
Dunnville	74	63

Name of School.	Entrance Examination, June, 1902.	
	Examined.	Passed.
High Schools.		
Dutton	66	52
Elora	84	33
Essex	51	44
Fergus	67	54
Forest	42	31
Fort William	24	17
Gananoque	62	47
Georgetown	40	35
Glencoe	60	47
Gravenhurst	50	36
Grimsby	33	32
Hagersville	59	51
Harriston	36	32
Hawkesbury	32	22
Iroquois	62	35
Kemptville	59	37
Kincardine	73	42
Leamington	60	41
Listowel	96	75
Lucan	114	81
Madoc	90	52
Markham	106	82
Meaford	47	39
Mitchell	85	71
Mount Forest	51	42
Newburgh	72	42
Newcastle	18	14
Newmarket	51	40
Niagara	18	16
Niagara Falls South	30	24
North Bay	30	22
Norwood	66	50
Oakville	61	56
Omemee	40	30
Orangeville	69	55
Oshawa	82	77
Paris	62	52
Parkhill	84	63
Pembroke	115	71
Petrolea	67	44
Picton	159	76
Port Arthur	30	23
Port Dover	29	19
Port Elgin	88	60
Port Hope	71	63
Port Perry	53	42
Port Rowan	33	25
Prescott	55	34
Rat Portage	51	30
Richmond Hill	47	37
Sault Ste. Marie	9	8
Simcoe	102	74
Smith's Falls	68	51
Smithville	32	27
Stirling	62	41
Streetsville	24	16
Sydenham	96	74
Thorold	49	32
Tilsonburg	60	44
Toronto Junction	107	70
Trenton	44	37
Urbridge	64	49
Vankleek Hill	86	48
Vienna	33	26

APPENDIX H.—*Continued.*

Name of School.	Entrance Examination, June, 1902.	
	Examined.	Passed.
High Schools.		
Walkerton	66	53
Wardsville	22	16
Waterdown	35	29
Waterford	51	40
Watford	65	47
Welland	30	30
Weston	35	26
Wiarton	48	31
Williamstown	31	18
Other places.		
Aberfoyle	23	20
Acton	37	26
Alliston	46	38
Alton	6	5
Alvinston	51	35
Ameliasburg	37	20
Amherstburg	44	34
Ancaster	36	29
Angus	19	12
Apsley	4	4
Arkona	16	11
Aultsville	26	13
Avonmore	43	26
Ayr	26	16
Bailieboro	16	11
Bancroft	20	11
Bath	44	22
Bayfield	11	9
Belle River	29	12
Beaverton	20	14
Beeton	12	12
Belmont	44	29
Bethany	38	30
Binbrook	29	19
Blackstock	17	13
Blenheim	64	54
Blyth	27	19
Bobcaygeon	30	17
Bolton	39	30
Bothwell	22	16
Bracebridge	50	32
Bridgeburg	29	25
Brigden	30	21
Bruce Mines	25	16
Brussels	52	45
Burford	23	21
Burk's Falls	33	24
Burlington	31	22
Burritt's Rapids	14	8
Cannington	22	19
Cardinal	15	6
Carp	36	11
Castleton	10	7
Charleston	25	18
Chatsworth	22	19
Chesley	47	33
Chesterville	58	34
Claremont	11	10
Clifford	10	10
Comber	16	10
Cookstown	27	18
Copper Cliff	11	9
Courtright	24	17
Creemore	9	4

Name of School.	Entrance Examination, June, 1902.	
	Examined.	Passed.
Other places.		
Crediton	30	17
Crosshill	15	14
Cumberland	44	20
Delhi	41	33
Delta	35	27
Dickinson's Landing	28	8
Drayton	46	36
Dresden	48	45
Dryden	6	4
Dundalk	33	20
Dungannon	34	27
Durham	63	37
East Toronto	31	16
Eglinton	25	25
Elmira	22	21
Elmvale	42	21
Embro	34	26
Erin	37	29
Exeter	62	54
Fenelon Falls	13	9
Finch	62	25
Fingal	64	58
Flesherton	45	35
Florence	28	17
Fordwich	25	20
Fort Frances	12	9
Glen Allan	13	13
Gore Bay	25	15
Grand Valley	40	25
Hall's Bridge	3	2
Hanover	27	25
Harrow	22	18
Hastings	14	8
Havelock	9	6
Hensall	21	13
Heathcote	14	9
Highgate	26	21
Hillsdale	34	25
Hintonburgh	38	27
Horning's Mills	9	8
Huntsville	33	22
Jarvis	34	24
Keene	16	14
Kingsville	38	23
Kintail	13	11
Kirkfield	26	20
Lakefield	46	38
Lanark	65	44
Lancaster	10	5
Laurel	12	11
Lion's Head	9	7
Little Current	11	7
Little Britain	24	17
London East	175	132
Lucknow	43	31
Magnetawan	6	5
Manitowaning	17	11
Manotick	26	21
Markdale	25	12
Marshville	25	22
Marksville	7	5
Marsville	15	15
Mattawa	12	6
Maxville	58	32
Merlin	42	39
Merrickville	37	16

APPENDIX H.—*Concluded.*

Name of School.	Entrance examination, June, 1902.		Name of School.	Entrance examination, June, 1902.	
	Examined.	Passed.		Examined.	Passed.
Metcalfe	46	20	Springfield	32	26
Midland	49	27	Stayner	60	48
Mildmay	17	16	Stoney Creek	33	26
Millbrook	27	23	Strabane	42	34
Milton	77	67	Stroud	29	23
Milverton	28	26	Sturgeon Falls	16	10
Minden	13	12	Sudbury	28	17
Moorefield	11	11	Sutton West	23	17
Mount Hope	21	12	Tamworth	26	17
Nepigon	4	4	Tara	25	18
Newboro'	32	21	Tavistock	17	8
New Hamburg	35	33	Tecumseh	16	8
Neustadt	7	3	Teeswater	36	27
North Augusta	17	8	Thamesville	38	30
North Gower	25	19	Thedford	30	15
North Lancaster	18	9	Thessalon	24	12
Norwich	44	31	Thornbury	36	23
Oil Springs	26	19	Tilbury	40	30
Orono	27	23	Tiverton	21	13
Otterville	21	18	Tottenham	30	26
Paisley	52	35	Tweed	45	34
Pakenham	36	28	Uptergrove	41	28
Palmerston	29	23	Wallaceburg	51	48
Parry Sound	40	35	Warkworth	24	17
Pelee Island	1	1	Waubaushene	36	22
Pelham S. S. No. 2	28	23	Webbwood	13	4
Penetanguishene	25	23	Wellington	30	23
Plantagenet	27	10	West Lorne	36	26
Plattsville	22	11	Westport Separate School	33	22
Port Colborne	37	31	Winchester	118	69
Port Dalhousie	54	42	Wheatley	14	13
Port Stanley	27	18	Wilkesport	27	7
Princeton	17	9	Wingham	57	46
Powassan	29	22	Woodbridge	20	16
Randwick	5	5	Woodville	29	15
Riceville	20	10	Wolfe Island	23	19
Richmond	28	14	Wooler	21	13
Ridgeway	30	21	Wroxeter	36	21
Ripley	24	18	Wyoming	49	35
Rockton	43	27	Zephyr	23	18
Rockwood	22	18	Zurich	19	12
Rodney	37	33			
Rosemont	17	12	**Summary.**		
Russell	19	11			
St. George	7	5	Collegiate Institutes	5,941	4,585
St. Helen's	13	10	High Schools	5,805	4,248
Sandwich	22	16	Other Schools	6,341	4,467
Schomberg	13	9			
Schreiber	11	9	Grand total	18,087	13,300
Selkirk	34	19			
Sharbot Lake	23	17	Comparison with June, 1901.		
Shelburne	36	26			
South Mountain	28	13	Increase	938	1,071
Sparta	17	16			
Spencerville	25	10			

REPORT

OF THE

MINISTER OF EDUCATION,

PROVINCE OF ONTARIO,

FOR THE YEAR 1902.

PART II.

PRINTED BY ORDER OF

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TABLE OF CONTENTS.

PART II.

PAGE.

APPENDIX I.—MANUAL TRAINING SCHOOLS.
Report of Inspector Leake 147

APPENDIX J.—STATISTICS OF COUNTY MODEL SCHOOLS, 1902 156

APPENDIX K.—PROVINCIAL NORMAL AND MODEL SCHOOLS; ONTARIO NORMAL COLLEGE.

I. Provincial Normal and Model Schools, Toronto 160
1. Staff of Toronto Normal School; students admitted 160
2. Staff of Provincial Model School, Toronto; number of pupils 160

II. Provincial Normal and Model Schools, Ottawa 160
1. Staff of Ottawa Normal School; students admitted 160
2. Staff of Provincial Model School, Ottawa; number of pupils 161

III. Provincial Normal School, London 161
Staff and students admitted 161

IV. Ontario Normal College.
Staff and students admitted 161

APPENDIX L.—REPORT OF THE PRESIDENT OF THE UNIVERSITY OF TORONTO 162

Addendum A.—Report of the Dean of the Faculty of Arts 170
Addendum B.—Report of the University College 173
Addendum C.—Victoria University 175
Addendum D.—Faculty of Medicine 176
Addendum E.—Applied Science and Engineering 178
Addendum F.—The Library 179
Addendum G.—Biological Museum 181
Addendum H.—The Pathological Museum 182
Addendum J.—Chemical Laboratory 182
Addendum K.—"University of Toronto Studies" 183
Addendum L.—Marine Biological Station of Canada 185
Addendum M.—Financial Statements 185
Addendum N.—List of Papers and Works by Members of Faculties and Research Students, for the year 1901-2 194

APPENDIX M.—REPORT OF THE SCHOOL OF PRACTICAL SCIENCE 198

Appendix N.—Superannuated Teachers, 1902.

1. Allowances granted during 1902 202
2. Summary for years 1882-1902 202

Appendix O.—List of Certificates Issued by the Department, 1902, Etc.

1. Inspectors' Certificates 203
2. High School Principals and Specialists 203
3. High School Assistants and Specialists 204
4. Summary of Public School Teachers' Certificates 204
5. First Class Certificates 204
6. Second Class Certificates 205
7. Kindergarten Directors 212
8. Kindergarten Assistants 212
9. Domestic Science 212
10. Temporary and Extended Certificates 213
11. Professional Examinations 213

Appendix P.—Members of the Educational Council, and Boards of Examiners; Lists of Associate Examiners, and High School Principals and Assistants.

1. Members of the Educational Council, 1902-1903 213
2. Boards of Examiners, 1902 214
3. Associate Examiners, 1902 216
4. Principals and Assistants of Collegiate Institutes and High Schools, January, 1903 222

Appendix Q.—High School Cadet Corps 293

A Relic of the Early Years of Last Century.

This is a neat specimen of a log School House, and, although it has not been used for school purposes for some years, it is still standing. It was the principal school in that locality for several years.

Domestic Science Laboratory, Ontario Normal College, Hamilton

Domestic Science Laboratory, Ontario Normal College, Hamilton.

Creighton Street Manual Training Centre, Ottawa.

Manual Training Class, Summer School, Toronto, 1902.

REPORT

OF THE

MINISTER OF EDUCATION

FOR THE YEAR 1902.

PART II.

APPENDIX I.—*MANUAL TRAINING SCHOOLS.*

Report of Inspector Leake.

Hon. Richard Harcourt, M.A., K.C., Minister of Education :

Sir,—I have the honor to submit to you, my second annual report on Manual Training, as carried on in the Province of Ontario, during the year ending December 31st, 1902. Prior to October 1st, 1902, my position was that of Director of the Macdonald Manual Training Schools, and from that date, Inspector of Technical Education under your Department. Technical Education in this instance, according to the Order-in-Council relating to my appointment, is taken to include Manual Training, Household Science and Art, Drawing, etc. The distinction between Manual Training and Technical Education is not yet clearly understood, and needs to be enforced, as the two are generally confounded. The work that is being done, is excellent and in every way the best preparation for Technical Education, but it is not Technical Education properly so-called. If we except the School of Practical Science, the different Commercial Courses, and all forms of drawing there is little or no Technical Education in the Province. A sure foundation is being laid on which can be safely and securely built a real and permanent system. We are doing well to avoid the mistake of some other countries, in attempting to organize a system without having trained a population to be in a fit state to take advantage of it.

Centres Opened.

The Manual Training Schools opened up to the end of the year number eighteen, and are fairly scattered throughout the Province. Their distribution is as follows :

Toronto.

Wellesley School (20), Givens Street School (29), Dufferin School (20), Ryerson School (20), Normal School (26). The centres at the four public

schools accommodate, at present, two classes in the forenoon, and one in the afternoon. Each thus gives instruction to 300 boys per week. At the Normal School four classes from the Model School are taken, and two classes of students. The total receiving instruction in the city is thus 1,336.

Ottawa.

Elgin Street (20), George Street (20), Creighton Street (20), Archibald Street (20), Wellington Street (20), Cambridge Street (20), Model School (20). One class is held each forenoon, and one each afternoon. In the preceding term three classes of Normal Students were held weekly. This gives a total accommodation for the city of 1,654 pupils per week.

Brockville.

One centre equipped for thirty boys, i. e., 300 per week. Those students of the Collegiate Institute, who were intending to be teachers, were given a course of Cardboard Modelling, suitable for public schools. The centres in the three towns above named, are supported entirely by the Macdonald Manual Training Fund and the same fund also supplies the teacher for London Normal School.

Brantford.

This centre is fitted to accommodate twenty and the equipment is loaned by the Macdonald Manual Training Fund. A separate building, in close proximity to the Collegiate Institute and public schools, has been erected for woodwork.

Stratford.

The equipment here is for twenty-five boys, and a very fine structure has been put up to accommodate all forms of the work under the one roof. It is intended at a future date to equip the basement for metal working, a purpose for which it is admirably suited.

Renfrew.

Two ends of the large assembly hall at the Collegiate Institute have been partitioned off thus providing two rooms, one for woodwork and the other for Household Science, leaving in the centre, a hall large enough for all other purposes required. From January to June a teacher was supplied by the Macdonald Fund, owing to the inability of the Board to obtain one. The Department is now in charge of a permanent teacher, engaged by the School Board.

Kingston.

A room in the basement of the Collegiate Institute is fitted up for eighteen boys and the equipment is of the highest character.

Woodstock.

An old gymnasium has been well adapted and equipped for twenty boys. Lathes are being put in and when the equipment is completed it will be excellent in every way.

Total Accommodation in the Province.

From the particulars given above respecting each centre it will be seen that when the equipment is utilized to its fullest extent that there is accommodation in the Province for more than 4,620 boys to take Manual Training every week.

Household Science.

Household Science is in active operation in Toronto, Ottawa, Stratford, Renfrew, London, Hamilton, and Brantford, while up-to-date equipments are being placed in the Normal College at Hamilton and in the Normal School at Ottawa. The girls from the Toronto public schools are taken at the Lillian Massey School of Household Science and Art, the best equipped, organized and taught School in the Province and probably in the Dominion. This school also undertakes Normal work, and under the able direction of Miss Norris, splendidly assisted by Miss Curzon, B.A., promises to do much to solve the thorny question of the supply of qualified teachers.

Manufacture of Equipment.

All the equipment purchased by the Macdonald Fund during the past twelve months has been obtained from Canadian manufacturers, and in all other cases locally. We have found that we can obtain a bench made in Canada in every respect equal, and in many superior, to the one made in the States, though the first benches purchased here, from being made of unseasoned lumber, did not lead to this conclusion. There seems to be here a remunerative field for a new industry, and what is wanted now is for some firm of repute to take the matter in hand, and lay itself out for equipping schools for this department of work.

Evening Classes.

The possession of a Manual Training Centre with properly qualified teachers offers another field of work that appears to have been overlooked. Evening classes in various technical and practical subjects should be organized and put in an effective condition. For those who are otherwise engaged in the day time, such classes would prove a great service. Their formation should not be a matter of much difficulty, as all the requirements are close at hand. They should be recognized and aided by the Department, and such aid and recognition would do much to foster their inauguration and stimulate their progress.

Progress.

Considering the shortness of the time that this movement has been in progress, and the comparatively large extension of the work in the Province, the progress made may fairly be regarded with satisfaction ; but there is still room for much greater development. There are yet eight cities and a large number of towns without Manual Training of any form. In a number of these the advantages of the subject only need to be brought to the notice of the people, to ensure its introduction.

Obstacles.

Many causes stand in the way of the more rapid and extensive adoption of some form of practical work, but the chief of these are :

1. The expense necessary.
2. Pressure of other studies.
3. Lack of competent teachers.

Expense.

Owing to a special room being required and a large number of tools, this expense is much greater than is the case with any other subject in the school curriculum. The Education Department has done, and is doing, much to overcome this objection by the awarding of liberal grants, and it is to be

hoped that, considering the importance of the work, and the influence it is capable of exerting upon the educational and industrial life of the Province, the Legislature will see fit to vote a largely increased sum towards this object. The most economical and also most effective method of carrying on the work is by the union of the two or three School Boards, as the case may be, each paying its proportion of the cost, according to the time taken, e.g.: Stratford sends to the Manual Training room seven classes from the Public Schools, three classes from the Collegiate Institute and one class from the Separate School, and the expense is borne by the respective Boards in this proportion. The work is controlled by a joint committee, composed of representatives of the three boards. Greater advantage should be taken of the Act of last session giving power to School Boards to combine for this purpose.

Departmental Grants.

The grants awarded by the Department should, owing to the greater expenditure required, be at first larger than those awarded for other subjects, but should remain so for only a limited period, as special grants can only be justified under special circumstances. They could be gradually reduced as the subjects commended themselves until Manual Training is placed in its proper position in the educational system, and that is, on exactly the same footing as other school subjects.

Pressure of Other Subjects.

I have much sympathy with those teachers who say: "We have too many subjects, and too little time to devote to them already, without another being added." This aspect of the question has been dealt with by Mr. John Seath, B.A., High School Inspector, in his report on the High School Course issued in 1901. In this report many valuable suggestions are made, the adoption of which would do much to lessen or remove altogether the force of this objection to the introduction of Manual Training into those places where it does not at present exist. Notwithstanding this difficulty, the fact remains that many schools have found it possible to introduce Manual Training without, at least, any detriment to the other branches of the curriculum, and in some cases, according to reports, with positive advantage.

Lack of Competent Teachers.

Both the above objections are much more easily overcome than the third one—the lack of competent teachers. We have been able to do a little, though very little, towards surmounting it. A course for teachers wishing to qualify as Instructors was held in Ottawa from February to July, a period of six months. The United States, which is the only country in the world which has paid the attention to this aspect of the subject, that its importance deserves, has training classes for this purpose lasting for two years, and students who have merely a High School training, have to take an introductory course of one or two years, before they are allowed to enter upon the course proper. Under these circumstances our six months' course seems all too short, but in the present state of opinion and lack of resources of many desirable candidates this was the most that could be accomplished. Many men who wished to take up this work had already spent a year at the Normal College, Hamilton, and some of them two or three years at the University, and for these reasons were unable to remain another lengthened period. With the time at the disposal of the students a great amount of work was done, and every teacher who obtained the diploma is

well qualified to teach Elementary Manual Training. Fifteen students attended the course—ten men and five women. Eight of these received a Government bonus of $100, and $20 from the Macdonald Fund in order to enable them to live in Ottawa during the six months the course continued. Four of the men held first-class certificates, and four of them were graduates or undergraduates of Canadian Universities.

Location of Teachers.

Two teachers trained in this Province are now employed in British Columbia, and one in New Brunswick. Others who commenced their work here are teaching in Calgary, Regina and Quebec. At the conclusion of their term of training, three students proceeded to the United States, but have now returned, having been offered appointments as Manual Training Instructors in the Dominion. Brantford, Stratford, Ottawa, Toronto, Renfrew and Brockville are also supplied with teachers trained in this Province.

Syllabus of Work.

In order that a certain amount of uniformity should be maintained with the only other course held in the Dominion (Truro, Nova Scotia), the scheme was drawn up in conjunction with the Director of the Macdonald Fund for that Province, and the two courses were conducted practically and theoretically on the same lines. The syllabus of work reads as follows :

Students to have received Normal School training or to produce satisfactory evidence of at least one year of experience in successful teaching. Age to be not under twenty years, and evidence as to good character and general fitness for training to be furnished.

Students will be received on probation. The Faculty of the school reserve the right to advise any student who may show little aptitude for the work to discontinue the course.

The course will commence in January and continue for a period of six months.

The work will consist of :

1. Drawing.
2. Bench work.
3. Theory.
4. Observation and Practice Teaching.

(a) Freehand. Simple drawing of ornament from the flat and from casts. Elementary shading from the cast. Drawing of objects involving the rules of perspective. Sketching of leaves, details of seed, fruit, etc., timber trees from natural forms, tools and their construction. Blackboard drawing for demonstration purposes.

(b) Mechanical Drawing. Orthographic or right lined projection ; descriptive or practical geometry as contained in the authorized text books ; scale drawing by standard and metric measurement ; isometric and conventional drawing. The representation by one or more of these methods, or a combination of them, of every piece of work performed at the bench.

The working of a series of models or exercises in wood graduated to form an educational course suitable for three years' work in Public Schools.

The making of at least six of these models to show, for teaching purposes, the sequence of the various operations. The making of a selection of models from the leading courses of Europe and America. The construction of joints commonly used by woodworkers, including the various forms of halving, mortising, dove-tailing, scarfing, etc. The designing and making of original models in place of any specified models in the graduated scheme.

On the completion of the course the models will become the property of the student. The bench work will include the use of various woods, glue, nails, screws, etc., and all the principal woodworking tools.

The history and practice of educational woodwork. The various systems. School management. The planning and arrangement of Manual Training rooms. The preparation of "notes of lessons." The arrangement of Demonstration and Object Lessons. The nature and properties of various materials used. The growth and structure of coniferous and broad-leaved trees. The felling, seasoning and conversion of timber, its faults and defects. Various methods of finishing wood, as shellacing, varnishing, etc.

The Macdonald Training Schools of the district will be open to the students for observation and practice. During the latter half of the course students will be required to spend some portion of each week in actual teaching under the observation, and subject to the criticism, of the faculty of the school.

At the end of the course an examination will be held to discover the student's ability in each of the foregoing branches.

1. Tests will be made of the student's knowledge of projection and its practical application to woodwork, also his ability to draw from memory portions of tools, leaves of trees, etc. Time, four hours.

2. A practical examination in bench work will be conducted to test the student's skill in the use of tools, and his general methods of working. This will be conducted by special examiners appointed by the Board of Examiners. An examination will be made of the student's knowledge of the various woods and of his ability to identify actual specimens. Time, four hours.

3. A written examination in the history and practice of educational woodwork and cognate subjects. Time, three hours.

4. "Notes of lessons" on the different subjects of the course to be prepared and submitted to the examiners, who will choose one or more to be given in their presence as a test of the student's ability to teach and manage a class. For this purpose classes of not more than sixteen pupils will be allotted to each student.

Satisfactory work during the training course, combined with success at the examination, will constitute the basis on which diplomas will be awarded.

Holiday Courses.

Holiday courses were this year held in the Cities of Toronto and Ottawa. That in Toronto was held directly under the supervision of the Education Department. The course continued for three weeks, but as the time could be divided between five subjects, Manual Training, Nature Study, Household Science, Drawing and Music, not much could be accomplished in either when a student elected to take three or more. If this course be held another year, and its continuance is warranted by its success, it would be advisable to restrict students to one, or at the most two subjects, as concentration of effort on one subject would be far more likely to secure lasting benefit. All the subjects taken were forms of Manual Training, with the exception, perhaps, of Music. The course in Ottawa was attended by sixty students, who spent the whole of their time at one or two subjects, chosen from the following : Woodwork, cardboard modelling and clay modelling.

Purpose of Summer Schools.

There seems to be an impression abroad in some circles that the purpose of these schools is for qualifying teachers to give instruction in the branches taken up, but this is not the case, and from the length and nature

of the preparation required, cannot be. Their purpose is simply to offer an introduction to the work, and to give practical information as to its nature and character. At first, owing to the scarcity of teachers, some who are by no means well qualified will be able to secure employment, but the standard should gradually be raised until none but those of the highest qualifications are employed.

Normal Schools.

Manual Training is now in progress at each of the three Normal Schools —Toronto, Ottawa and London. In Ottawa and Toronto it is supported by the Macdonald Fund, and in London the teacher's salary is at present paid from the same source. After the 30th day of June next the work will be continued under the direct control of the Education Department, and the cost defrayed out of Provincial funds. The equipment at the latter place is provided by the Department, and is certainly the most complete in the Province, and probably in the Dominion, both as to quarters and appliances. It is hoped that the room will be used by pupils from the Collegiate Institute and the Public Schools, in addition to the Normal students. Two courses will be taken by the students, one suitable for Public Schools, and also a course in which an effort will be made to co-relate the work to the Science, Nature Study and other subjects taken in the Normal School.

When the lengthened term comes into operation, the time devoted to this subject should be greatly increased. As the Normal College, Hamilton, is the only institution we have for the purpose of training first-class teachers, the Department has recognized the advisability of installing Manual Training. An arrangement has been reached with the Hamilton School Board by which that Board agrees to co-operate with the Department, thus making Household Science a part of the Collegiate and Public School courses. The agreement, which has been signed, places the subject on a most satisfactory basis.

Co-relation.

The problem of co-relation which we, with the cordial co-operation of the Principal and Vice-Principal, are endeavoring to solve at London is an important one, and no effort should be spared to give Manual Training a direct bearing upon all other work taken in the school. Now that the subject is well established, all efforts should be turned in this direction. Manual Training as an isolated subject loses at least half of its advantages ; it is only when it touches closely school and home life that it achieves its best results. This lack of co-relation is not so much chargeable to Manual Training in Canada as in some other countries, but it remains with us to see that we carry it to a greater point of perfection than has yet been reached ; but it will not be the work of a day, nor of one man.

Preliminary Training.

All Manual Training commences in the Kindergarten, and from this point it should enter into all school life ; but at present there is generally an unfortunate break, since from the time that the boy or girl leaves the Kindergarten, there is no practical work until what is known as the Manual Training room is reached. There is urgent need for some preliminary training in the Public Schools, in order that a desirable continuity may be obtained from the Kindergarten upwards. No expensive equipment is required, and the ordinary class room is well fitted for its practice. Drawing, brush work, cardboard modelling, paper folding and clay modelling form desirable chan-

nels into which these efforts could be directed. Work of this kind has already been tried in Ottawa, Brockville and Renfrew, with very encouraging results, and the introduction of it into the Public Schools of Stratford, under the able direction of Mr. Stuart, is being considered.

The following is an extract from the report of Mr. J. L. Hughes, Public School Inspector, Toronto :

"I have much pleasure in stating that the work in the Macdonald Manual Training Schools has given great satisfaction. . . . The pupils have manifested deep interest in the Manual Training work. The Prncipals of the schools, from which they come, have reported heartily in favor of the work, and of its influence on the character of the boys. Parents, too, are learning to value Manual Training, not simply as a training for a higher class of industrial work, but as distinctly educational in training the observing powers and the executive power. It is in the general development of the intellectual and moral powers, and in the cultivation of habits of productiveness, that the best influence of Manual Training is found. . . . The work during the year has been a distinct advance in the work of our schools."

Mr. J. Connolly, Public School Inspector, Brockville, reports in part as follows :

"My observation leads me to place a high value on such training, and, notwithstanding some early misgivings as to its place in our schools, I believe, and my teachers agree with me, that our boys make as much progress as they did prior to its introduction. While the boys are engaged at woodwork, the girls, under the direction of the regular teachers, are receiving a systematic course in sewing, knitting, and cardboard work. In the junior classes we have set apart Friday afternoon for eye and hand training. Here we have paper-folding and cutting, weaving and cardboard work of a simple nature. In two classes we have introduced clay modelling."

Public Meetings.

During the year I have had the pleasure of addressing public meetings, and meetings of the School Boards in Berlin, Guelph, Lindsay, Peterborough, Essex, Hamilton, Renfrew, Cornwall, Chatham and Woodstock on the subject of Manual Training, and much interest was displayed in the subject at each place. In the majority of them the question of its early introduction is being seriously considered.

Exhibitions.

Exhibitions of the work done at the schools have been held with much success in Ottawa, Toronto and Brockville. These, when carried out on right lines, do much towards exciting a healthy public opinion on the subject, and tend to bring about a closer connection between the parent and the school. In other centres the parents were invited to the Manual Training room when their own boys were at work, and this plan has much to recommend it. A collection of Manual Training work from every school in the Province would prove of intense interest. It might be shown at the Toronto and other exhibitions with great advantage.

Drawing.

Drawing is a form of Manual Training which every school can take up, but the curriculum relating to the subject stands in urgent need of revision. An investigation should be made into the practice of the best English and American schools, and our revision be founded on the results of this investigation, but modified to suit our particular requirements.

Library.

A list of the newest books on these and kindred subjects is being prepared for addition to the Departmental and Normal College Libraries.

Regulations.

Inasmuch as the Education Department will at an early date (the Macdonald Fund expiring in June next) assume complete control of the work of Technical Education in the Province, the whole question of recognition of and aid to schools taking any form of Manual Training must be considered.

I am at present engaged in drafting regulations, which will be made as elastic and free as possible, for submission to you, under which these schools should be conducted and grants awarded.

I have the honor to be

Your obed'ent servant,

ALBERT H. LEAKE,
Inspector of Technical Education.

Toronto, 12th Jan., 1903.

APPENDIX J.—STATISTICS OF

Name of Model School.	Name of Principal.	Certificate of Principal.	Salary of Principal.	Year of appointment.	Time Principal devotes to Model School work daily during the term.	No. of assistants with 1st Class certificates.	No. with 2nd Class.	No. with 3rd Class.	No. with other class.
			$						
1 Athens	C. Ross McIntosh	I	600	1901	all day	1	3	....	.....
2 Barrie	W. J. Hallett	I	900	1893	"	.....	8	....	.....
3 Beamsville	H. J. Talbot	I	600	1898	"	.....	4	....	.....
4 Berlin	J. Suddaby	I	1,100	1877	all except 2 hrs. a week	1	7	2	.....
5 Bracebridge	W. C. Shier, B.A	I	900	1900	all day	3	3	3	2
6 Bradford	A. N. Scarrow	I	750	1902	"	.....	4	....	.....
7 Brampton	Wm. F. Sparks	I	750	1901	"	1	8	....	.....
8 Caledonia	John B. Widdis	I	600	1902	5 hrs. 10 min.	1	3	....	.....
9 Chatham	J. W. Plewes	I	1,100	1900	all day	.....	15	....	.....
10 Clinton	W. R. Lough	I	850	1884	"	1 (B.A.)	6	....	.....
11 Cornwall	Sam J. Keys	I	900	1902	"	.. ....	11	....	.....
12 Durham	Thos. Allan	I	700	1888	"	.....	5	....	1
13 Elora	Jas. A. Underhill	I	700	1901	5 hrs.	.....	5	....	.....
14 Forest	Jas. Campbell	I	750	1894	all day	.....	5	....	.....
15 Galt	R. Alexander	I	500	1875	"	2	6	....	1
16 Gananoque	J. C. Linklater	I	1,000	1888	"	1	6	4	.....
17 Goderich	Jas. H. Tigert	I	700	1902	"	1	9	2	.....
18 Hamilton	Jno. B. Robinson, B.A	I	800	1902	"	.....	8	....	.....
19 Ingersoll	H. F. McDiarmid	I	900	1885	"	2	9	1	.....
20 Kincardine	D. Currie	I	700	1902	"	1	7	....	.....
21 Kingston	R. F. Greenlees	I	750	1902	"	5	41	....	.....
22 Lindsay	G. E. Broderick	I	1,000	1888	"	1	19	....	....
23 London	G. B. Kirk	I	1,200	1900	5 hrs.	1	9	....	.....
24 Madoc	T. C. Tice	I	800	1897	all day	1	5	....	.....
25 Meaford	M. N. Clark, B.A	I	750	1899	"	.....	5	3	.....
26 Milton	Wm. F. Inman	I	780	1893	"	1	3	3	.....
27 Minden	Wm. J. Stevenson	I	500	1901	"	... .	2	....	.....
28 Mitchell	J. H. W. McRoberts	I	700	1899	"	2	5	....	... .
29 Morrisburg	A. E. Meldrum	I	800	1895	"	.....	4	2	.....
30 Mount Forest	G. R. Theobald	I	800	1900	"	.....	8	....	.....
31 Napanee	C. H. Edwards, B.A.	I	1,000	1899	"	2 (1B.A)	7	1	.....
32 Newmarket	J. W. Forhan	I	700	1899	"	.....	6	....	.....
33 Norwood	R. H. Leighton	I	600	1902	"	.....	5	....	.....
34 Orangeville	M. N. Armstrong	I	800	1885	5½ hrs.	.....	9	1	.....
35 Owen Sound	T. A. Reid	I	1,100	1894	all day	.....	....	1	....
36 Parry Sound	A. M. Currie	I	800	1896	"	2	4	1	2
37 Perth	M. M. Jaques	I	1,000	1884	"	.....	7	1	1
38 Picton	S. C. Woodworth	I	800	1901	"	1	8	....	.....
39 Port Hope	F. Wood	I	1,000	1885	"	.....	12	2	.....
40 Port Perry	R. F. Downey	I	600	1902	"	1	4	1	.....
41 Prescott	A. A. Jordan	I	1,000	1899	"	.....	7	....	.....
42 Renfrew	W. A. Stickle	I	725	1900	"	.....	7	....	.....
43 St. Thomas	*S. Silcox, B.A., D.Pæd.	I	1,200	1899	"	2	9	....	.....
44 Sarnia	A. Wark	I	950	1877	"	.....	8	....	
45 Simcoe	I. S. Rowat	I	800	1889	"	1	6	....	.....
46 Stratford	*J. Russell Stuart	1	1,100	1887	all except when insp'ng	1	24	....	.....
47 Strathroy	Thos. Dunsmore	I	850	1882	all day	.....	9	..	.....
48 Toronto	W. E. Groves	I	1,400	1895	"	1	10	....	.....
49 Toronto Junction	Wm. Wilson	I	1,000	1889	"	1	11	.. ..	.....
50 Vankleek Hill	A. H. Fairchild, B.A.	I	700	1902	"	... .	4	....	.....
51 Walkerton	W. R. Manning	I	800	1902	"	4	5	....	....
52 Whitby	J. A. Brown	I	950	1877	"	2	2	....	3
53 Windsor	David M. Eagle	I	1,000	1901	"	2 (1B.A)	11	1	.....
54 Woodstock	S. Nethercott	I	950	1893	"	.....	28	.. .	1
Totals	6 University Graduates	54 I				46	436	29	11

* Inspector of Public Schools.

COUNTY MODEL SCHOOLS, 1902.

	Time assistant relieved Principal from Public School work daily.	Is separate room provided?	No. of volumes in professional library.	Government grant.	Municipal grant.	Fees.	No. of divisions in school.	No. of divisions used for Model School purposes.	No. of students sent at one time to observe.	No. of students sent at one time to teach.	Length of time students are trained before being sent to the divisions to observe.	Length of time students are trained before being sent to the divisions to teach.
				$	$	$						
1	all day	Yes	113	150	150	175	4	4	8 or 9	8 or 9	4 weeks	6 weeks
2	"	"	102	150	150	160	8	8	4	4	6 "	6 "
3	"	"	131	150	150	115	4	4	6	6	5 "	6 "
4	all except 2 hrs. a week	"	125	150	150	30	12	10	3	3	6 "	6 "
5	all day	"	121	300	.....	100	11	7	2 or 3	2 or 3	6 "	8 "
6	"	"	93	150	150	150	4	4	4	4	6 "	7 "
7	"	"	100	150	250	127	9	7	3 or 4	3 or 4	6 "	7 "
8	"	"	110	150	150	75	4	4	4	4	7 "	7 "
9	"	"	365	150	150	150	15	15	4	4	4 "	6 "
10	"	"	120	150	150	130	7	7	3 or 4	3 or 4	6 "	6 "
11	"	"	195	150	150	100	11	10	2	2	4 "	6 "
12	"	"	100	150	150	85	7	5	3 or 4	3 or 4	5 "	8 "
13	"	"	109	150	150	90	5	5	3 or 4	3 or 4	6 "	7 "
14	"	"	100	150	150	70	6	5	3	3	6 "	6 "
15	"	"	128	150	150	20	9	7	4	4	6 "	8 "
16	"	"	109	150	150	55	12	5	2	2	6 "	8 "
17	"	"	100	150	150	95	12	10	3	3	6 "	6 "
18	"	"	207	150	150	180	8	150	3	3	2 "	7 "
19	"	"	108	150	150	25	13	10	5	5	5 "	7 "
20	"	"	87	150	150	65	8	8	3	3	2 "	3 "
21	"	"	161	150	150	95	46	43	3	4	5 "	5 "
22	"	"	100	150	150	95	20	18	1	1	5 "	7 "
23	5 hrs.	"	78	150	750	175	10	10	4	4	1 "	5 "
24	all day	"	200	150	150	165	6	6	5 or 6	5 or 6	5 "	5 "
25	"	"	91	150	150	95	8	8	3	3	6 "	7 "
26	"	"	100	150	200	55	7	5	3 or 4	3 or 4	6 "	6 "
27	"	"	146	150	150	50	3	3	5	5	6 "	6 "
28	"	"	102	150	150	65	7	7	2 or 3	2 or 3	6 "	6 "
29	"	"	93	150	150	125	7	6	5	5	5 "	6 "
30	"	"	111	150	150	120	8	8	3	3	7 "	7 "
31	"	"	220	150	150	135	10	8	3 or 4	3 or 4	6 "	6 "
32	"	"	125	150	175	45	6	6	2	2	6 "	6 "
33	"	"	91	150	150	65	6	6	4 to 13	4 to 13	6 "	6 "
34	"	"	112	150	150	113	10	6	4	4	7 "	7 "
35	.....	"	214	150	150	175	11	10	3 or 4	3 or 4	6 "	7 "
36	all day	"	105	300	.....	95	10	5	4	4	6 "	6 "
37	"	"	119	150	150	150	10	10	3 or 4	3 or 4	6 "	7 "
38	"	"	210	150	150	130	10	8	3	3	5 "	7 "
39	"	"	100	150	200	135	15	15	2	2	6 "	6 "
40	"	"	110	150	150	100	7	7	3 or 4	3 or 4	6 "	6 "
41	"	"	131	150	150	130	7	7	3 or 4	3 or 4	6 "	6½ "
42	"	"	104	150	150	135	8	8	3 or 4	3 or 4	6 "	6 "
43	.....	"	124	150	50	145	11	11	5	5	5½ "	6 "
44	.....	"	104	150	150	85	9	8	3	3	6 "	6 "
45	all day	"	148	150	150	120	8	7	3 or 4	3 or 4	6 "	8 "
46	.....	"	300	150	150	150	25	22	3	3	6 "	6 "
47	all day	"	114	150	150	90	9	9	2	2	6 "	6 "
48	"	"	218	150	150	185	12	11	12	2	3 "	7 "
49	"	"	130	150	150	100	11	11	3	3	6 "	6 "
50	"	"	76	150	150	90	4	4	4 or 5	4 or 5	6 "	7 "
51	"	"	106	150	150	125	9	9	3	3	7 "	7 "
52	"	"	136	150	150	80	7	7	4	4	6 "	7 "
53	"	"	95	150	150	110	14	14	2	2	6 "	7 "
54	"	"	193	150	150	105	30	20	2	2	6 "	8 "
	.....	.....	7,189	$8,400	$8,525	$5,830	.....	.....	.....	.....	.....	.....

APPENDIX J.—STATISTICS OF

	Name of Model School.	Number of weeks students teach in the divisions.	Number of hours per day.	Number of classes in the division used for Model School purposes.	Average number of lessons taught by each student during the term.	Average number of lessons each class will be taught by all the students during the term.	Average length of each lesson.	Time students remain in a division before passing to another.
1	Athens	7 to 8	6	11	20	63	20 min	2 or 3 d'ys
2	Barrie	8	1	19	21	35	16 "	1 week
3	Beamsville	8	1½	9	16	41	20 "	1 "
4	Berlin	6	1¾	15	24	9	25 "	1 "
5	Bracebridge	6	1¼ to 1½	16	20	25	20 "	4 days.
6	Bradford	6	2	10	16	48	20 "	4 "
7	Brampton	6	1	12	24	52	15 "	4 "
8	Caledonia	6	1 to 2	10	28	42	22 "	1 week
9	Chatham	6	1	22	17	25	18 "	2 days.
10	Clinton	4	1¾	16	20	32	18 "	3 "
11	Cornwall	4	1½	24	16	13	20 "	2 "
12	Durham	4	1½	12	20	28	20 "	3 "
13	Elora	7	1 to 1⅓ (3 dys a wk)	14	18	23	20 "	4 "
14	Forest	6	1½	13	18	19	20 "	1 week
15	Galt	4	1⅔	8	20	10	20 "	1 day
16	Gananoque	5	⅔	12	20	18	20 "	1 week
17	Goderich	5	1	20	21	20	20 "	4 days
18	Hamilton	7	3 half days a week	150	20	4	25 "	1½ "
19	Ingersoll	5	1½	14	20	7	18 "	3 "
20	Kincardine	5	⅔	8	24	39	25 "	5 "
21	Kingston	6	1⅓	49	22	8	20 "	4 "
22	Lindsay	6	1½	44	20	9	20 "	2 "
23	London	6	1¼	10	25	87	20 "	1 "
24	Madoc	8	1	14	16	38	20 "	3 "
25	Meaford	6	1½	14	20	27	22 "	1 "
26	Milton	6	1	17	20	13	20 "	1 week
27	Minden	6	1½	12	22	18	20 "	1 "
28	Mitchell	7	1½	10	24	31	20 "	4 days
29	Morrisburg	5½	1⅓	14	15	28	20 "	1 week
30	Mount Forest	7	1½	17	21	29	20 "	3 days
31	Napanee	5	1½ (4 days a week.)	14	22	42	20 "	1 week
32	Newmarket	6	1	12	24	18	20 "	1 "
33	Norwood	4	2	11	16	19	20 "	1½ h'rs.
34	Orangeville	6	1½	13	20	35	20 "	1 week
35	Owen Sound	5	1¾	13	18	45	20 "	2 days
36	Parry Sound	6	1¼	11	20	35	20 "	1 week
37	Perth	6	1⅓	20	20	34	20 "	1 "
38	Picton	5½	1⅓	13	20	40	20 "	4 days
39	Port Hope	7	⅔	21	25	31	20 "	3 "
40	Port Perry	6	⅔ (3 days per week)	6	18	57	20 "	1 week
41	Prescott	6½	2½	12	20	41	25 "	1 "
42	Renfrew	6	1½	21	20	26	20 "	1 "
43	St. Thomas	7	1	15	22	40	20 "	1 "
44	Sarnia	7	1½	24	25	17	20 "	4 days
45	Simcoe	4	1½	13	20	37	20 "	3 "
46	Stratford	6	1¼ (4 days per week)	48	22	14	20 "	1 week
47	Strathroy	6	⅔ to 1	27	27	18	20 "	4 days
48	Toronto	5	⅔	11	20	*37	20 "	1 "
49	Toronto Junction	6	1¼	13	18	27	20 "	3 "
50	Vankleek Hill	4	3	12	20	30	20 "	4 "
51	Walkerton	6	†3	14	23	41	20 "	4 "
52	Whitby	7	1⅓	17	29	27	20 "	4 "
53	Windsor	7	1	22	22	22	20 "	1 week
54	Woodstock	6	1 to ½	20	24	24	25 "	4 days
	Totals							

* Half of the lessons taught in other schools.

† Teaching and observing.

COUNTY MODEL SCHOOLS.—*Concluded.*

	Number of students on roll.	Male.	Female.	Number who passed final examination. Male.	Female.	Total.	Number with Senior Leaving standing.	Number with Junior Leaving standing.	Number with Primary standing.	Number with P. S. L. standing (District).	Allowance made by trustees to Principal's assistant.	Number of renewals granted by the Board.	Average age of students.
											$		
1	35	8	27	8	27	35	1	32	2	.....	125	3	19 9/10 yrs.
2	31	15	16	14	16	30	3	28	.....	.....	.....	1	19 3/4 "
3	23	10	13	10	11	21	.....	23	.....	.....	125	4	19 1/4 "
4	6	4	2	4	2	6	.....	6	.....	.....	105	4	20 "
5	20	1	19	1	18	19	1	11	.....	8	280	9	18 1/2 "
6	30	13	17	13	17	30	.....	22	.....	8	125	.....	18 4/5 "
7	26	10	16	9	15	24	3	23	.....	.....	100	.....	19 "
8	15	4	11	4	11	15	.....	15	.....	.....	100	1	19 "
9	32	11	21	11	20	31	3	29	.....	.....	160	23	18 3/4 "
10	26	8	18	8	18	26	4	22	.....	.....	$35 per mo	2	19 "
11	20	5	15	5	15	20	2	17	.....	1	140	38	19 "
12	17	7	10	7	10	17	2	13	....	2	130	6	19 "
13	18	7	11	7	11	18	.....	18	.....	.....	.....	.....	19 1/10 "
14	14	5	9	5	9	14	.....	14	.....	.....	130	1	19 1/2 "
15	4	.....	4	.....	3	3	.....	4	.....	.....	.....	.....	19 3/4 "
16	11	1	10	1	10	11	.....	9	2	.....	150	2	20 "
17	19	6	13	6	13	19	2	17	.....	.....	150	2	19 "
18	36	8	28	7	28	35	1	35	.....	.....	.....	5	19 "
19	5	3	2	3	2	5	.....	5	.....	.....	.....	.....	18 "
20	13	6	7	6	7	13	1	9	.....	3	135	7	19 1/10 "
21	19	3	16	2	16	18	2	17	.....	.....	.....	15	19 "
22	19	7	12	7	12	19	.....	19	.....	.....	.....	6	18 3/4 "
23	35	10	25	10	24	34	2	33	.....	.....	250	1	19 1/2 "
24	33	10	23	10	21	31	.....	24	.....	9	125	24	18 4/5 "
25	19	8	11	8	10	18	2	14	.....	3	175	8	18 9/10 "
26	11	1	10	1	10	11	.....	9	.....	2	192	8	19 7/10 "
27	10	1	9	1	9	10	.....	.....	.....	10	.....	8	21 "
28	13	5	8	2	8	10	1	12	.....	.....	140	.....	18 1/2 "
29	25	11	14	11	14	25	.....	25	.....	.....	.....	17	19 1/4 "
30	24	6	18	6	18	24	2	22	.....	.....	107	1	19 3/10 "
31	27	7	20	7	20	27	1	25	.....	1	.....	6	18 9/10 "
32	9	3	6	3	6	9	1	8	.....	.....	135	.....	19 "
33	13	6	7	6	7	13	.....	12	.....	1	130	.....	19 "
34	23	7	16	7	16	23	.....	23	.....	.....	175	8	20 "
35	35	6	29	5	27	32	1	28	6	.....	.....	11	18 1/10 "
36	19	1	18	1	18	19	.....	1	.....	18	200	11	18 "
37	34	7	27	7	27	34	1	33	.....	.....	135	3	19 "
38	26	8	18	7	18	25	3	22	.....	1	135	3	18 3/4 "
39	27	10	17	9	16	25	2	25	.....	.....	.....	3	18 1/2 "
40	19	7	12	7	12	19	1	18	.....	.....	.....	5	20 7/10 "
41	26	4	22	4	22	26	1	23	2	.....	150	4	19 "
42	27	3	24	3	24	27	.....	27	.....	.....	125	30	18 7/10 "
43	29	5	24	4	23	27	1	28	.....	.....	.....	6	19 "
44	17	3	14	2	13	15	.....	17	.....	.....	.....	.....	19 7/10 "
45	24	7	17	7	17	24	1	23	.....	.....	160	3	19 2/5 "
46	30	7	23	6	23	29	3	27	.....	.....	.....	2	18 1/3 "
47	18	4	14	4	14	18	2	16	.....	.....	175	.....	19 "
48	37	3	34	3	33	36	2	35	.....	.....	.....	5	19 3/10 "
49	20	4	16	4	16	20	1	19	.....	.....	175	.....	19 "
50	18	5	13	5	13	18	.....	18	.....	.....	180	3	19 1/10 "
51	25	14	11	12	10	22	1	24	.....	.....	130	5	18 1/4 "
52	16	5	11	5	11	16	4	12	.....	.....	125	2	19 "
53	22	6	16	5	16	21	.....	18	.....	4	180	8	19 2/5 "
54	21	7	14	7	14	21	2	19	.....	.....	.....	9	19 "
	1,171	333	838	317	821	1,138	60	1,028	12	71	.....	.....	19 1/10 yrs.

APPENDIX K.—*PROVINCIAL NORMAL AND MODEL SCHOOLS; ONTARIO NORMAL COLLEGE.*

I. PROVINCIAL NORMAL AND MODEL SCHOOLS, TORONTO.

1. Staff of Toronto Normal School, 1902.

Wm. Scott, B.A.	Principal
W. H. Elliott, B.A.	Vice-Principal.
A. C. Casselman	Drawing Master and in Model School.
A. T. Cringan	Music Master and in Model School.

Students Admitted, 1902.

	Male.	Female.
First Session	11	117
Second Session	13	111
Total	24	228

2. Staff of the Provincial Model School, Toronto, 1902.

Angus McIntosh	Head Master.
Miss M. Meehan	First Female Assistant.
R. W. Murray	First Male Assistant.
Miss May K. Caulfeild	Assistant.
Thomas M. Porter	Assistant.
Miss E. M. Hill	Assistant.
Miss Jeannie Wood	Assistant.
Miss A F. Laven	Assistant.
Miss Sarah M. Ross	Assistant.
Miss E. M. Hill	Assistant.
Miss F. M. Taylor	Assistant.
Miss Mary E. Macintyre	Kindergarten Directress.
Miss Ellen Cody	Kindergarten Assistant.
Mrs. Jean Somers	Instructor in Calisthenics.
Mrs. Emma Macbeth	Instructor in Domestic Science.
Sergeant-Major D. Borland	Drill Master.
Eugene Masson	French Teacher.

Number of pupils in 1902	516
Number of Kindergarten pupils in 1902	71

II.—PROVINCIAL NORMAL AND MODEL SCHOOLS, OTTAWA.

1.—Staff of Ottawa Normal School, 1902.

*J. A. MacCabe, M.A., LL.D.	Principal.
S. B. Sinclair, M.A., Ph.D	Vice-Principal.
J. A. Dobbie	Drawing and Writing Master.
T. A. Brown	Music Master.
Miss E. H. Keyes, B.E	Instructor in Elocution and Physical Culture.
Miss Eliza Bolton	Lecturer on Kindergarten Principles.
Miss B. Livingstone	Lecturer on Domestic Science.

* Deceased.
James F. White appointed Principal 11th December, 1902, duties to commence 1st January, 1902.

Students Admitted, 1902.

	Male.	Female.
First session	21	70
Second session	21	62
Total	42	132

2.—Staff of Provincial Model School, Ottawa, 1902.

J. H. Putman, B.A.	Head Master.
J. F. Sullivan	First Assistant.
F. A. Jones	Second Assistant.
Miss H. S. Williams, B.A.	Third Assistant.
Miss M. E. Butterworth	First Female Assistant.
Miss Florence Hanington	Second Female Assistant.
Miss A. G. Hanahoe	Third Female Assistant.
Miss A. E. G. Wilson	Fourth Female Assistant.
Miss Eliza Bolton	Kindergarten Directress.
Miss J. Storks	Kindergarten Assistant.
J. A. Dobbie	Drawing and Writing Master.
T. A. Brown	Music Master.
Miss E. H. Keyes, B.E.	Teacher of Physical Culture.
Miss B. Livingstone	Teacher of Domestic Science.
J. Fleury	French Teacher.
Number of pupils, 1902	310
Number of Kindergarten pupils, 1902	61

III.—PROVINCIAL NORMAL SCHOOL, LONDON.

Staff of London Normal School, 1902.

F. W. Merchant, M.A.	Principal.
John Dearness	Vice-Principal.
S. K. Davidson	Drawing Master.
Fred. L. Evans	Music Master.
Miss Agnes Mackenzie	Teacher of Kindergarten Principles.

Students Admitted, 1902.

	Male.	Female.
First Session	27	80
Second Session	30	56
Total	57	136

IV.—ONTARIO NORMAL COLLEGE.

Officers.

J. A. McLellan, M.A., LL.D., Principal.
R. A. Thompson, B.A., Vice-Principal.

Faculty.

J. A. McLellan, M.A., LL.D., Professor of the Physiology, History and Philosophy of Education.

R. A. Thompson, B.A., Lecturer on School Management.

J. T. Crawford, B.A., Lecturer on Methods in Mathematics.

W. M. Logan, M.A., Lecturer on Methods in Classics.

F. F. Macpherson, B.A., Lecturer on Methods in Literature and Composition.

S. A. Morgan, B.A., D. Paed., Lecturer on Methods in English Grammar and Rhetoric.

A. Paterson, M. A., Lecturer on Methods in History and Geography.

E. S. Hogarth, B.A., Lecturer on Methods in Modern Languages.

J. B. Turner, B. A. Lecturer on Methods in Chemistry, Botany and Zoology.

J. Gill, B.A., Lecturer on Methods in Physics.

J. C. McCabe, M.D., Lecturer in School Hygiene and Sanitation.

G. L. Johnston, B.A., Lecturer on Methods in Writing and Drawing.

T. E. Parkhill, Sergeant, XIII. Batt., Drill Instructor.

J. Johnson, Music.

F. F. Macpherson, B.A., Lecturer on Elocution and Reading.

Students admitted, Session 1902-3.—Male, 57; Female, 75; Total, 132.

APPENDIX L—ANNUAL REPORT OF THE PRESIDENT OF THE UNIVERSITY OF TORONTO.

To His Honor the Hon. Sir Oliver Mowat, K.C.M.G., Lieutenant-Governor of Ontario :

May it please your Honor,—

I have the honor to submit the following report for the year ending June 30th, 1902. It is the first report presented on the work and business of the University as a whole, and is prepared in accordance with the provisions of the University Act of 1902.

The Teaching Staffs.

The following is a tabular statement of the numbers engaged in teaching during the year in the Faculties named. These numbers include the Arts staffs of University College and Victoria College.

	Arts.	Medicine.	Applied Science.
Professors and Associate Professors	35	30	6
Lecturers and Demonstrators	18	11	7
Instructors and other Assistants	17	15	7
	70	56	20

Changes in the Staffs.

The following paragraphs contain notes of the more important resignations, appointments and promotions in the various faculties. In the case of new appointments, some reference has been made to the academic career of those appointed.

After the resignation of Professor Chapman in 1895, Professor Coleman, of the School of Practical Science, and Dr. W. A. Parks, acted as Professor and Instructor, respectively, in the subjects of Geology and Mineralogy. In 1901, Dr. Coleman was appointed Professor of Geology, including Economic Geology, on the understanding that he should have charge of this subject both in the Faculties of Arts and Applied Science. Under a similar arrangement, Dr. T. L. Walker was appointed to the chair of Mineralogy and Petrography in October, 1901, and Dr. Parks was promoted from an Instructorship to a Lectureship in Geology.

Professor Walker graduated in 1890 with highest honors in Chemistry and Mineralogy at Queen's University. In 1894 he proceeded to Leipzig, where he studied Mineralogy and Petrography and graduated with distinction as Doctor of Philosophy in 1896. During the years 1895-97, as a student of Mineralogy and Petrography at Leipzig, he held one of the Scholarships awarded by the Commissioners for the Exhibition of 1851. Besides occupying several positions in Canada, his professional appointments before receiving the professorship here include that of Assistant Superintendent (1897), and Curator (1901), of the Geological Survey of India, and Lecturer on Geology (1898) in the Presidency College, University of Calcutta. He has published various papers which have appeared in the American Journal of Science, the Quarterly Journal of the Geological Society of London, etc., etc.

The staff in Mathematics has been strengthened by the appointment in June, 1902, of Dr. J. C. Fields as special lecturer in that department. Dr. Fields graduated at the University of Toronto in 1884, with highest honors in Mathematics. Subsequently he was elected a Fellow of Johns Hopkins University, where he received the Doctorate degree in 1887. From 1889 to 1892 he served as Professor of Mathematics in Allegheny College. In 1893 he went to Europe where he remained until 1900, pursuing his special studies and investigations, chiefly in connection with the Theory of Algebraic Functions, at Paris, Goettingen, and Berlin. His papers are published in Crelle's Journal (Berlin), in Acta Mathematica (Stockholm), the American Journal of Mathematics, and elsewhere.

In the same department Mr. A. T. DeLury, M.A., has been promoted from a Lectureship to an Associate Professorship.

In the Department of Physics the two demonstrators, Mr. W. J. Loudon, B.A., and Mr. J. C. McLennan, B. A., Ph.D., have been promoted to the rank of Associate Professor.

At the opening of the session Dr. R. R. Bensley and Dr. Joseph Stafford, of the Biological Department, resigned; the former to accept the position of Assistant Professor of Anatomy in the University of Chicago, and the latter that of Lecturer on Zoology in McGill University. At the close of the year Dr. E. C. Jeffrey received a call to an Assistant Professorship at Harvard University, and decided to accept it, although a full professorship of Botany was offered to him with the view of retaining his services here. The positions thus vacated have been filled by the appointment of Dr. B. Arthur Bensley as Lecturer on Zoology, of Dr. W. H. Piersol as Lecturer on Histology and Elementary Biology, and of Mr. J. H. Faull as Lecturer on Botany.

Dr. B. A. Bensley graduated in the University of Toronto with highest honors in the Natural Sciences in 1896, and during the next three years served successively as Assistant Fellow, and Acting Lecturer in Botany. In 1899 he was appointed Senf Fellow in Columbia University, where he engaged in researches on the Phylogeny of Mammals, receiving the degree of Ph.D. in 1902.

Dr. Piersol graduated in the University of Toronto with honors in Natural Science in 1895, and in Medicine in 1899. He has served as Instructor in Biology in McMaster University and as Assistant Demonstrator of Anatomy in this University.

Mr. Faull graduated in the University of Toronto with highest honors in Natural Science in 1898. After teaching at Albert College, Belleville, for two years, he engaged in research work here under Dr. Jeffrey and produced a valuable paper on the Anatomy of the Osmundaceae. Subsequently he was appointed to the Austin Fellowship at Harvard University, where he devoted himself to the study of the Fungi.

In Victoria College Associate Professors J. C. Robertson, B.A., and Pelham Edgar, Ph.D., have been promoted to the rank of Professor.

In the Faculty of Medicine Drs. W. McKeown and C. L. Starr, formerly Demonstrators in Clinical Surgery, were each promoted to the position of Lecturer in Clinical Surgery.

Dr. T. D. Archibald, formerly Assistant Demonstrator in Pathology, was promoted to the position of Laboratory Assistant in Bacteriology.

Dr. W. Goldie, formerly Laboratory Assistant in Bacteriology, was appointed Demonstrator in Clinical Medicine.

Dr. A. R. Gordon and G. Chambers were each promoted from the position of Demonstrators in Clinical Medicine to that of Lecturer in Clinical Medicine.

Students in Arts, Medicine, and Applied Science.

Arts.—(1) B.A. Course.			
Regular—University College	432		
Victoria College	224		
		656	
Occasional.—University College	128		
Victoria College	47		
		175	
Graduate.—University College	14		
Victoria College	19		
		33	
(2) Ph.D. Course.			
University	11		
University College	4		
Victoria College	3		
		18	
			882
Medicine.—Regular	407		
Occasional	67		
			474
Applied Science.—Regular	288		
Occasional	2		
			290
			1646

Candidates Examined.

Arts	912
Medicine	465
Law	13
Applied Science and Engineering	264
Pedagogy	6
Agriculture	10
Dentistry	14
Pharmacy	51
Music	50
Total	1885

Degrees Conferred.

LL.D. (Hon.)	14
Mus. Doc. (Hon.)	1
Ph.D.	2
M.A.	24
B.A.	130
M.D.	1
M.B.	55
LL.B.	6
D.D.S.	39
E.E.	1

B.A.Sc.	15
B.S.A.	7
B.Paed.	2
Mus. Bac.	2
Phm.B.	51
Total	350

Among those who received the degree of LL.D. *honoris causa* was His Royal Highness the Duke of Cornwall and York, on whom this degree was conferred at a special convocation held on the 11th October, 1901.

New Courses of Study.

The number of students in Arts of the University who after graduation devote themselves to commercial pursuits or to journalism has been rapidly increasing for some years past. A constant and growing demand exists for young men for business posts who have enjoyed the advantages of a University education, and a number of graduates who have entered upon positions of this nature have met with remarkable success. In view of a feeling existing widely in business circles that a shorter course leading to a diploma instead of the usual degree in Arts would be of advantage to young men contemplating a business career, and especially in view of the representation made to this effect by the Toronto Board of Trade, the Senate instituted in June, 1901, a two years' course in Commercial Science leading to a diploma in the subject. This course came into operation at the beginning of the session 1901-1902. Amongst the subjects prescribed in the course is that of Commercial Law, for instruction in which there is no provision as yet in the University. For the next session Professor Young has voluntarily undertaken to lecture on the subject, and it is hoped that a permanent arrangement will be made with him to continue to give such instruction. Owing to the very special nature of the course in Commercial Science it would be extremely desirable that some officer of the University should be charged with the responsibility of superintending and advising the students who are proceeding to the diploma.

A new course leading to the degree of B.A., with honors has been instituted in the Department of Biological and Physical Science. Graduates in this department are allowed to enter the Faculty of Medicine with third year standing, so that it is now possible to obtain the degrees of B.A. and M.B. in six years.

In response to a wide demand on the part of the Associated Musicians of Ontario and others interested in musical education the Senate framed a curriculum for Local Examinations in Music, the first examination under which took place in June, 1902. These examinations include the Primary, Junior and Senior grades in the practical branches (piano, organ, and violin) and the Junior, Intermediate, and Senior grades in the Theory of Music.

A demand has also arisen for instruction in the subjects of Household Science and Forestry with the result that steps are now being taken towards meeting the needs of the public in respect of these important branches of Applied Science.

Research Work.

It is with great satisfaction that I note the growth of an appreciation within the University for the work of research, and the accomplishment during the year of a considerable amount of such work by members of the staff as well as by graduates and undergraduates. The movement in favor of research may be said to have begun with the establishment, on the suggestion of the undersigned, of the Fellowship System in 1882, which was intended to furnish

tutorial assistance and at the same time encourage research work amongst our gradu tes. The system, however, was only partially successful as regards research owing to the prominence given to the tutorial function of those holding fellowships.

Under the present circumstances of the University it appears to me extremely desirable that the original condition requiring a tutorial fellow to devote part of his time to research should be reimposed and that the prop rtion of time so devoted should not be less than one half.

A further step in the direction of encouraging research was taken, also on the motion of the undersigned, in 1883, when the Senate passed a resolution affirming the desirability of establishing the degree of Ph.D. No further action was, however, taken, owing to various causes, until 1897, when the statute establishing the degree in question was finally passed. An essential condition of this statute is that all candidates are required to engage in a research and to publish an app oved thesis thereon before obtaining the degree, I may add that the chief credit for this step is due to Professor A. B. Macallum, whose persistent efforts on behalf of this statute were continued in the face of many obstacles until success was finally attained in 1897. Since then the degree of Ph.D. has been conferred on six candidates. Many graduates, however, have registered and engaged in the work of the course, the numbers registered during the last three years being, 14, 21, and 18, respectively.

A very gratifying feature of the growth of the research movement here is its extension to undergraduates. For some years it has been customary to employ fourth year students in researches, with the best results, both as regards the advancement of knowledge and the stimulating effect on the students so engaged.

For list of papers published during the year by members of the University, see Appendix.

In connec ion with the research movement mention should be made of the "University of Toronto Studies." This periodical was established in 1897 for the purpose of affording a medium for the publication of papers of original research by members of the Faculty and graduate students. Up to the end of the academic year twenty-three important papers of this nature had appeared. The periodical is also of value to the University owing to the fact that it serves as a medium of exchange for similar publications of other Universities.

It would be of advantage to the University if the funds at the disposal of the committee were adequate to the publication of a larger proportion of the papers offered, many of which now appear in American and foreign journals. For report of the committee on "University Studies", see Appendix.

Special University Lectures.

Apart from the regular instruction by members of the Faculty, special lectures were delivered during the year by Professor Hadamard, of the University of Paris, on "A comparison of the three concepts, the limiting ratio, the infinite series, and the definite integral, as serving as a basis for the infinitesimal analysis"; by J. C. Glashan, LL. D., of Ottawa, on "The Matrix Analysis of the Concomitants of Quantics"; and by M. Hugues Le Roux, of Paris, France, on "Le Roman contemporain, est-il une peinture exacte de la societe Francaise ?"

In addition to the above the usual course of Saturday popular lectures was delivered in January and February by Dr. W. H. Drummond, F. C. Wade, Esq., Professor A. P. Coleman, Rev. Professor Halliday Douglas, Rev. Provost Macklem, and Professor McGregor Young.

The Library.

From the report of the Librarian, which is appended, it will be seen that the total accumulation of books in the Library since the destruction of the former Library by fire in 1890 now amounts to 72,337 bound volumes and 22,500 pamphlets. The number of volumes added during the year was 4,201, of which 2,150 were presentations.

Amongst the donations to the Library during the year, special mention should be made of the donation of $10,000 by Professor and Mrs. Goldwin Smith to constitute a fund to be known as "The King Alfred Memorial Fund", the proceeds of which are to be devoted to the purchase of historical publications. Special mention should also be made of the bequest of the late Rev. Henry Scadding, D.D., under whose will a large part of his valuable library was donated to the University. This bequest also included a number of rare and valuable coins and medals.

The most pressing necessity of the Library at present is an extension of the building in which would be provided a reading-room for the members of the teaching staff and additional accommodation for administrative purposes.

The Museum.

On the erection of the Biological Building some years ago space was provided and reserved for a botanical museum. Up to the present time, however, no progress has been made towards the required equipment. The want of such a museum is now urgently felt and its establishment will be absolutely necessary in connection with the contemplated courses in Forestry.

The University Press.

Owing to the retirement from business of the former University printer, who served the University so faithfully in this respect for many years, it became necessary in the course of the year to make new arrangements. In view of the extent of this branch of the service, and especially in view of the confidential nature of a large portion of the work, it was deemed advisable to bring the supervision of the printing more immediately under the control of the University authorities. To this end the undersigned recommended the establishment of the University Press, and the Board of Trustees gave effect to this recommendation in February, 1902. Temporary accommodation has been secured in the old Wycliffe College, where a modern printing plant adequate to present needs has been installed. The operation of the printing plant has so far proved eminently successful.

The University Dining Hall.

The necessity has been felt for some years back of making provision for many students of the University who desired to lodge in the vicinity of the building, and to take their meals in a common hall. To meet this want an association was organized in 1900, to serve the convenience of students of all faculties in this respect, the dining hall attached to the former University College residence being utilized for this purpose. Large numbers have taken advantage of the accommodation thus afforded and the establishment of the hall has proved valuable as regards the material comfort as well as the social intercourse of the students.

The Faculty and Undergraduate Unions.

To further promote the social intercourse of Faculty and students these organizations were established in the west wing of the main building. The Faculty Union consisting of members of the various faculties of the University was inaugurated during the present year. It is furnished with reading

room and dining room, and is likely to prove useful in promoting social intercourse within the faculties. A similar purpose as regards the undergraduates is served by the Undergraduate Union, also located in the west wing, which was inaugurated in 1901 and is now in successful operation.

New Buildings.

Amongst the improvements of the year for the purpose of affording increased accommodation, mention should be made of the new Medical Building and the new Science Building. The Medical Building is intended for the accommodation of the students of the third and fourth years in the Faculty of Medicine, and also those of the Arts Department in Physiology. The erection of this building upon the University grounds will permit of the concentration of all the work of instruction in medicine, apart from Clinics, within the precincts of the University. Provision has been made for library, museum, large lecture rooms and laboratories. The most modern improvements in lighting, heating and ventilation are included in the plan. The total floor space will amount to 64,830 square feet, and the cost, exclusive of equipment, will be upwards of $125,000. It is expected that this building will be ready for occupation before the end of the session of 1902-3.

For some years past the space afforded by the buildings of the School of Practical Science has been quite inadequate to the increasing numbers in attendance, and in addition to this the Department of Mineralogy and Geology in the Arts Faculty has suffered much through the lack of suitable laboratories and lecture rooms. For the purpose of providing for the necessities of the two faculties of Arts and Applied Science in these respects a new building is in course of erection on the University grounds facing on College Street. The building is designed to accommodate the Departments of Applied Chemistry, Mineralogy, Geology, and Mining. The total floor space of this building is estimated at about 66,400 square feet, and the total cost at about $200,000.

In connection with Victoria College a residence for Women Students has been erected, facing on the North Drive between Bloor Street and Czar Street. It contains reception rooms, two large lecture or assembly rooms, dining room for eighty persons, gymnasium, dormitories and all necessary administrative and domestic offices, is heated by steam, lighted by electricity and provided with thorough ventilation. It will afford accommodation for sixty students. The cost of building and furnishing will be upwards of $60,000, the gift of the late Hart A. Massey and the Victoria Women's Residence Association.

Building Requirements.

In the report of the University Council for 1899-1900 attention was directed to the necessity for a new building for the purposes of the Department of Physics. It was then pointed out that both the laboratory and lecture room accommodation was entirely unsuitable, having been originally designed for other purposes. Since the date of that report the difficulty has been intensified through the accession of increasing numbers of students, especially those in the faculties of Applied Science and Medicine, all of whom are required to take Physics as part of their course. The erection of a new Physical Laboratory is in my opinion the most urgent need of the University at the present time, and cannot be longer delayed without seriously impairing the efficiency of this important department.

In the report referred to above, attention was similarly directed to the necessity for providing one or two lecture rooms in the main building similar

to those in the chemical and biological buildings for the accommodation of the larger classes in the various subjects. I desire also in this report to direct the attention of your Honor to this matter.

Other Requirements.

Since the destruction of the Convocation Hall by the fire of 1890, and the consequent remodelling of the main building, the University has been without any suitable rooms for the holding of commencement exercises or similar large meetings of a public character. With the numbers now in attendance a hall with accommodation for 2,000 persons would be no more than sufficient. The erection of such a hall would not only be of great convenience to the University but would also enable the public to attend academic functions, with the result of increased interest in the work of the institution.

The problem of providing for the board and lodging of the large numbers of students, both male and female, in attendance at the University has now become of urgent importance. The difficulty will be further increased in the near future by the fact of the transference of the teaching in Medicine in the third and fourth years from the School on Gerrard Street to the new Medical Building on the University grounds. The time has now come when the interests of the University will suffer if some general provision is not made for dealing with this matter. The lack of residential facilities will undoubtedly result in the loss of students to the University, and will thus be attended by a diminution in the scope of its usefulness, as well as indirectly by the diminution of its revenues. Many parents are deterred from sending their sons and daughters to a University where residential accommodation under supervision of the authorities is lacking. Such students will naturally be attracted to other institutions where these facilities are afforded. The difficulty existing has been met to some slight extent by the organizations known as Greek Letter Societies, several of which have maintained boarding houses successfully for some years. In some of the American Universities, notably the State University of Michigan, these societies have attained such development as to afford a practical solution of the residence problem, but it seems unlikely that a similar development will take place here. Under existing circumstances it would, in my opinion, be expedient to provide for the erection of a University Residence for the accommodation at the outset of at least 200 students. The establishment of such a residence would be a legitimate and prudent investment in the general interests of the University.

A large amount of attention is very properly given to athletic exercises by the students of the University, both in the gymnasium and on the field. These exercises have been undertaken hitherto without medical supervision. Experience has demonstrated the fact that the absence of such oversight is not unattended with danger. Injury is often done through the attempting of unsuitable exercises; students suffering from organic disabilities are, through ignorance of the fact, subject to grave danger or even to fatal consequences, while through over-training students physically sound may contract organic lesions which in the sequel may lead to serious or even fatal consequences. Further, it is found that many students suffer from mild types of deformity which are capable of correction under proper advice. These various considerations clearly indicate the desirability of appointing a medical director, who by his professional knowledge would be qualified to judge of the physical conditions of the students, and would be enabled to advise and direct them in the selection of the most appropriate form of physical training.

The above requirements have regard mainly to the wants of the Faculty of Arts. An examination of the financial statement of the Faculty of Applied Science and a consideration of the teaching staff and the attendance of students lead us to the conclusion that a much larger appropriation and several important additions to the staff are necessary in order that this important faculty of the University should keep pace with modern requirements.

Finances.

The following figures exhibit the total revenues and expenditures for the three Faculties of Arts (University and University College), Medicine and Applied Science and Engineering.

	Revenue.	Expenditure.
Arts	$149,089 28	$158,650 56
Medicine	37,094 21	37,094 21
Applied Science and Engineering	37,539 88	37,539 88

Details of these figures will be found in the Addendum.

The figures relating to Applied Science and Engineering are extracted mainly from the Public Accounts of the Province, the financial administration of the School of Practical Science being directly under Government control. The net cost of the School to the Province would appear to be about $17,480.

I have the honor to be, Sir,
Your obedient servant,

J. LOUDON, President.

Toronto, February 2nd, 1903.

ADDENDUM A—REPORT OF THE DEAN OF THE FACULTY OF ARTS.

University of Toronto, February 3rd, 1903.

James Loudon, Esq., LL.D., President of the University of Toronto :

Sir,—I beg to submit herewith a detailed list for the academic year 1901-2 of the personnel of the teaching staff in the Faculty of Arts of the University of Toronto, and also statistics as to the attendance of students in the various subjects taught by the members of the staff. As will be seen certain classes are taken advantage of by students of the Faculties of Medicine and Applied Science.

Staff, 1901-1902.

Faculty of Arts.

Physics :

Professor, James Loudon, M.A., LL.D
Demonstrator, W. J. Loudon, B.A.
Lecturer, C. A. Chant, M.A., Ph.D.
Demonstrator, J. C. McLennan, B.A., Ph.D.
Mechanical Assistant, J. S. Plaskett, B.A.
Assistant, G. R. Anderson, M.A.

Mathematics :

Professor, Alfred Baker, M.A.
Lecturer, A. T. DeLury, M.A.
Fellow, E. F. Burton, B.A.

Chemistry :

Professor, W. R. Lang, D.Sc.
Associate Professor of Physical Chemistry, W. L. Miller B.A., Ph.D.
Lecturer, F. B. Allan, M.A., Ph.D.
Lecturer, F. B. Kenrick, M.A., Ph. D.
Fellow, Miss C. C. Benson, B.A.
Lecture Assistant, C. M. Carson, B.A.

Biology :

Professor, R. Ramsay Wright, M.A., B.Sc., LL.D.
Lecturer, E. C. Jeffrey, B.A., Ph.D.
Instructor, W. H. Piersol, B.A., M.B.
Instructor in Zoology, B. A. Bensley, B.A., Ph.D.
Assistant in Botany, R. B. Thomson, B.A.
Assistant in Zoology, C. M. Fraser, B.A.
Assistant in Biology, S. H. Westman, B.A.

Physiology :

Professor, A. B. Macallum, M.A., M.B., Ph.D.
Demonstrator, F. H. Scott, B.A., Ph.D.

Geology :

Professor, A. P. Coleman, M.A., PhD.
Instructor, W. A. Parks, B.A., Ph.D.

Mineralogy and Petrography :

Professor, T. L. Walker, M.A., Ph.D.

Comparative Philology :

Professor, Maurice Hutton, M.A., LL.D.

History and Ethnology :

Professor, G. M. Wrong, M.A.

Political Economy and Constitutional History :

Professor, James Mavor.
Lecturer, S. M. Wickett, B.A., Ph.D.
Mackenzie Fellow in Political Science, H. P. Biggar, B.A.
Mackenzie Fellow in Political Science, F. L. Farewell, B.A.

Philosophy :

Professor of History of Philosophy, J. G. Hume, M.A., Ph.D.
Associate Professor, A. Kirschmann, Ph.D.
Lecturer, F. Tracy, B.A., Ph.D.
Instructor, A. H. Abbott, B.A.
Assistant, W. G. Smith, B.A.

Italian and Spanish :

Professor, W. H. Fraser, M.A.
Instructor in Spanish, P. Toews, M.A., Ph.D.
Instructor in Italian, E. J. Sacco.

Roman Law, General Jurisprudence and History of English Law :

Professor, A. H. F. Lefroy, M.A.

Constitutional and International Law :

Professor, J. McGregor Young, B.A.

The following table exhibits the numbers attending the honor lectures in University subjects. In no case do the numbers for pass include honor students :

	Pass.								
	Mathematics.	Physics.	Chemistry.	Biology.	Mineralogy and Geology.	Philosophy.	Logic.	Political Science.	History.
Arts—First Year	122	9	.....	103	.....	.....	.....	.....	.....
Arts—Second Year	.....	.....	8	.....	31	117	91	5	77
Arts—Third Year	.....	2	.....	.....	.....	.....	.....	25	19
Arts—Fourth Year	32	.....	.....	.....	.....	23	.....	24	23
Medicine—First Year	.....	118	117	.....	.....	.....	.....	.....	.....
Medicine—Second Year	.....	.....	110	.....	.....	.....	.....	.....	.....
School of Practical Science	146	143	.....	.....	.....	.....	.....	.....	.....
Totals	300	272	235	103	31	140	91	54	119

	Honor.											
	Mathematics.	Physics.	Chemistry.	Biology.	Physiology.	Mineralogy and Geology.	Philosophy.	Political Science.	History.	Italian.	Spanish.	Phonetics.
Arts—First Year	34	76	58	29	.....	.....	.....	.....	.....	38	20	49
Arts—Second Year	47	62	42	17	16	26	34	31	36	18	10	.....
Arts—Third Year	14	22	20	11	.....	15	17	31	63	16	3	.....
Arts—Fourth Year	13	13	6	3	3	4	12	21	45	8	8	.....
Arts—Graduates	.....	.....	.....	4	.....	.....	1	7	.....	.....	.....	.....
Arts—Ph. D. Students	.....	2	3	1	2	1	2	1	1	.....	.....	.....
Medicine—First Year	.....	.....	.....	123	131	.....	.....	.....	.....	.....	.....	.....
Medicine—Second Year	.....	.....	.....	107	114	.....	.....	.....	.....	.....	.....	.....
School of Practical Science	81	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	189	175	129	295	266	46	66	91	145	80	41	49

The following table exhibits the numbers taking practical work in the laboratories :

Laboratories.	Physical.	Chemical.	Mineralogical.	Biological.	Physiological.	Psychological.
Arts—First Year	27	17	.....	29	.....	.....
Arts—Second Year	28	42	26	17	16	.....
Arts—Third Year	15	18	15	11	.....	17
Arts—Fourth Year	7	6	4	3	3	10
Arts—Graduates	.....	.....	.....	4	.....	.....
Arts—Ph. D. Students	2	3	1	1	2	3
Medicine—First Year	.....	117	.....	123	.....	.....
Medicine—Second Year	.....	110	.....	107	114	.....
School of Science—First Year	66	.....	.....	.....	.....	.....
School of Science—Second Year	77	.....	.....	.....	.....	.....
School of Science—Third Year	32	.....	.....	.....	.....	.....
Totals	254	313	46	295	135	30

I also subjoin statistics as to the courses selected by regular students proceeding to a degree in Arts in the University. The following table indicates whether the students in question are enrolled in University College or Victoria College :

	First Year.		Second Year.		Third Year.		Fourth Year	
	U.C.	V.C.	U.C.	V.C.	U.C.	V.C.	U.C.	V.C.
Classics	15	6	12	3	14	3	4	1
English and History	12	3	5	1	6	1	1	1
Modern Languages	31	9	21	4	17	10	19	4
Oriental Languages	..	..	2	2	2	1	3	..
History	..	..	1	..	..	..	..	..
Political Science	..	..	24	3	23	6	19	2
Philosophy	..	..	19	3	12	8	4	6
Mathematics and Physics	18	7	12	4	12	3	15	2
Physics and Chemistry	4	1	3	1	1	..	2	..
Chemistry and Mineralogy	6	3	6	2	4	2	4	..
Natural Science, Div I.	17	4	9	8	9	..	3	..
Natural Science, Div. II.	..	..	..	..	2	..	..	..
General Course	42	20	19	20	12	11	27	12

I am, Sir, yours faithfully,

(Sgd.) R. RAMSAY WRIGHT,
Dean of the Faculty of Arts.

ADDENDUM B—REPORT OF UNIVERSITY COLLEGE.

Principal, Maurice Hutton, M.A., LL.D.

Greek :

Professor, Maurice Hutton, M.A., LL.D.
Lecturer, Adam Carruthers, M.A.

Latin :

Professor, John Fletcher, M.A., LL.D.
Lecturer, W. S. Milner, M.A.
Lecturer, G. W. Johnston, B.A., Ph.D.

English :

Professor, W. J. Alexander, B.A., Ph.D.
Lecturer, D. R. Keys, M.A.

German :

Professor, W. H. VanderSmissen, M.A.
Lecturer, G. H. Needler, B.A., Ph.D.
Instructor, P. Toews, M.A., Ph.D.

French :

Professor, John Squair, B.A.
Lecturer, John Home Cameron, M.A.
Instructor, St. Elme de Champ, B. es L.

Oriental Literature :

Professor, J. F. McCurdy, Ph.D., LL.D.
Lecturer, R. G. Murison, M.A. Ph.D.

Ethics :

Professor, J. G. Hume, M.A., Ph.D.

The following table exhibits the number of students in attendance during the session :

First Year.....	Regular.....	148	
	Occasional.....	28	
			176
Second Year.....	Regular.....	137	
	Occasional.....	6	
			143
Third Year.....	Regular.....	115	
	Occasional.....	9	
			124
Fourth Year.....	Regular.....	101	
	Occasional.....	16	
			117
	Graduates.....	14	
	Ph.D. Students.....	4	
			578

The following tables exhibit the number of students in attendance upon lectures on subjects of the General and Honor Courses :

General Course.

	Greek.	Latin.	Ancient History.	English.	German.	French.	Orientals.	Ethics.
First Year.....	36	148	99	159	45	61	26	.....
Second Year.....	44	94	.....	117	33	40	16	.....
Third Year.....	21	21	.....	111	6	10	3	44
Fourth Year.....	5	11	.....	64	13	15	7	.....
Totals.....	106	274	99	451	97	126	52	44

Honor Course.

	Greek.	Latin	Ancient History.	English.	German.	French.	Orientals.	Ethics.
	17	21	21	71	48	62	.....	.....
First Year.....	16	16	39	45	25	25	3	.....
Second Year.....	16	15	16	34	18	20	2	11
Third Year.....	6	5	5	26	17	20	3	12
Fourth Year.....	.....	.....	.....	.....	.....	.....	3	1
Ph. D. Students.....								
Totals.....	55	57	81	176	108	127	11	24

ADDENDUM C.—VICTORIA UNIVERSITY.

Rev. N. Burwash, S.T.D., LL.D., F.R.S.C.,
President.

Rev. Alfred H. Reynar, M.A., LL.D.,
Dean of Faculty of Arts, William Gooderham Professor of English Literature.

A. R. Bain, M.A., LL.D.,
Nelles Professor of Ancient History.

Rev. E. I. Badgley, M.A., LL.D.,
Egerton Ryerson Professor of Mental and Moral Philosophy.

Rev. Francis Huston Wallace, M.A., D.D.
Dean of Faculty of Theology, Professor of Biblical Greek.

A. J. Bell, M.A., Ph.D. (Bresl.),
Macdonald Professor of the Latin Language and Literature.

Rev. John Burwash, M.A., D.Sc., LL.D.,
Professor of English Bible.

L. E. Horning, M.A., Ph.D. (Goettingen),
Professor of German and Old English.

Rev. J. F. McLaughlin, B.A., B.D.,
Professor of Oriental Languages and Literature.

J. C. Robertson, B.A.,
Professor of the Greek Language and Philosophy.

Pelham Edgar, Ph.D.,
Professor of the French Language and Literature.

A. L. Langford, M.A.,
Associate Professor of the Greek Language and Literature.

A. E. Lang, M.A.,
Associate-Professor of the German Language and Literature.

E. Masson,
Instructor in French.

A. P. Misener, M.A.,
Lecturer in Oriental Languages and Literature.

The following table exhibits the number of Arts students in attendance during the session :

First Year	Regular	66	
	Occasional	8	
			75
Second Year	Regular	59	
	Occasional	14	
			73
Third Year	Regular	45	
	Occasional	14	
			59
Fourth Year	Regular	32	
	Occasional	6	
			38
	Graduates	9	
	Ph. D. Students	3	
			257

ADDENDUM D.—FACULTY OF MEDICINE.

Dean of the Faculty, Prof. R. A. Reeve, M.D., LL.D.

Professores Emeriti :

James Thorburn, M.D.
M. H. Aikins, B.A., M.D.
W. W. Ogden, M.D.
J. H. Richardson, M.D.

Professor of Surgery and Clinical Surgery :

I. H Cameron, M.B., Tor., F.R.C.S., Eng.

Associate-Professor of Surgery and Clinical Surgery :

G. A. Peters, M.B., Tor., F.R.C.S., Eng.

Associate-Professors of Clinical Surgery :

A. Primrose, M.B., C.M., Edin.
B. Spencer, M.D., Tor.
L. M. Sweetnam, M.B., Tor.
H. A. Bruce, M.B., Tor., F.R.C.S., Eng.
W. Oldright, M.A., M.D., Tor.
F. N. G. Starr, M.B., Tor.

Demonstrators of Clinical Surgery :

C. L. Starr, M.B., Tor.
W. McKeown, B.A., M.B., Tor.

Professor and Director of the Anatomical Department :

A. Primrose, M.B., C.M., Edin.

Associate-Professor of Anatomy :

H. W. Aikins, B.A., M.B., Tor.

Demonstrator of Anatomy :

F. N. G. Starr, M.B., Tor.

Assistant Demonstrators of Anatomy :

C. L. Starr, M.B., Tor.
A. A. Small, M.B., Tor.
W. J. Wilson, M.B., Tor.
R. E. Hooper, B.A., M.B., Tor.
S. H. Westman, M.B., Tor.
W. J. Wilson, M.B., Tor.
D. McGillivray, M.B., Tor.
R. D. Rudolf, M.D., C.M., Edin., M.R.C.S., Lond.
W. H. Piersol, B.A., M.B., Tor.
A. C. Hendrick, B.A., M.B., Tor.
A. J. MacKenzie, B.A., M.B., LL.B., Tor.

Professor of Medicine and Clinical Medicine :

A. McPhedran, M.B., Tor.

Associate-Professors of Clinical Medicine :

W. P. Caven, M.B., Tor.
W. B. Thistle, M.D., Tor.

Lecturers in Medicine and Clinical Medicine :

R. J. Dwyer, M.B., Tor.
R. D. Rudolf, M.D., C.M., Edin., M.R.C.S., Lond.

Lecturer in Clinical Medicine :

G. Boyd, B.A., M.B., Tor.

Demonstrators in Clinical Medicine :

A. R. Gordon, M.B., Tor.
G. Chambers, B.A., M.B., Tor.

Professor of Pathology and Bacteriology :

J. J. MacKenzie, B.A., M.B., Tor.

Associate-Professor of Pathology and Bacteriology :

J. A. Amyot, M.B., Tor.

Laboratory Assistant in Bacteriology :

W. Goldie, M.B., Tor.

Assistant Demonstrators of Pathology :

G. Silverthorn, M.B., Tor.
W. J. Wagner, M.B., Tor.

Professor of Materia Medica and Therapeutics :

James M. MacCallum, B.A., M.D., Tor.

Associate-Professor of Pharmacology and Therapeutics :

C. F. Heebner, Phm.B., Tor.

Professor of Gynaecology :

U. Ogden, M.D., Tor.

Professor of Obstetrics :

A. H. Wright, B.A., M.D., Tor.

Associate-Professor of Obstetrics and Pediatrics :

H. T. Machell, M.D., Tor.

Associate Professor of Gynaecology :

J. F. W. Ross, M.B., Tor.

Demonstrator of Obstetrics :

K. C. McIlwraith, M.B., Tor.

Professor of Ophthalmology and Otology :

R. A. Reeve, B.A., M.D., LL.D., Tor.

Associate Professor of Ophthalmology and Otology :

G. H. Burnham, M.D., Tor., F.R.C.S., Edin.

Professor of Laryngology and Rhinology

G. R. McDonagh, M.D., Tor.

Professor of Hygiene :

W. Oldright, M.A., M.D., Tor.

Professor of Toxicology :

W. H. Ellis, M.A., M.B., Tor.

Professor of Medical Jurisprudence :
B. Spencer, M.D., Tor.

Lecturer on Medical Jurisprudence :
Hon. David Mills, LL.B., K.C.

Extra Mural Professors of Mental Diseases :
Daniel Clark, M.D., Tor.
N. H. Beemer, M.B., Tor.

Professor of Physics :
James Loudon, M.A., LL.D., Tor.

Lecturer on Physics :
C. A. Chant, M.A., Ph.D., Tor.

Professor of Chemistry :
W. R. Lang, D.Sc., Glasg.

Lecturers in Chemistry :
F. B. Kenrick, M.A., Tor., Ph.D., Leipzig.
F. B. Allan, M.A., Ph.D., Tor.

Associate-Professor of Physical Chemistry :
W. L. Miller, M.A., Tor., Ph.D., Munich.

Professor of Biology :
R. Ramsay Wright, M.A., B.Sc., Edin., LL.D., Tor.

Assistant Demonstrator in Biology :
R. R. Bensley, B.A., M.B., Tor.

Professor of Physiology :
A. B. Macallum, M.A., M.B., Tor., Ph.D., Johns Hopkins.

The following table exhibits the number of students registered as in attendance upon the lectures given by the staff of the Faculty of Medicine :

Students in the fifth year (Post Graduate)	2
Students in the fourth year	58
Students in the third year	99
Students in the second year	117
Students in the first year	131
Occasional students	67
Total	474

ADDENDUM E—APPLIED SCIENCE AND ENGINEERING.

Dean of the Faculty, Principal Galbraith, M.A., LL.D.

Chemistry :
Professor, W. H. Ellis, M.A., M.B.
Demonstrator, J. W. Bain, B.A.Sc.
Fellow, E. G. R. Ardagh, B.A.Sc.
Lecture Assistant, J. A. DeCew, Grad. S.P.S.

Mineralogy and Geology, Mining and Metallurgy :
Professor, A. P. Coleman, Ph.D.
Lecturer, G. R. Mickle, B.A.
Fellow, A. H. A. Robinson, B.A.Sc.

Applied Mechanics :

Professor, J. Galbraith, M.A.
Lecturer, J. A. Duff, B.A.
Lecturer, R. W. Angus, B.A.Sc.
Demonstrator, W. Monds, B.A.Sc
Fellow, A. H. Harkness, B.A.Sc.

Architecture and Drawing :

Professor, C. H. C. Wright, B.A.Sc.
Fellow, J. T. M. Burnside, B.A.Sc.
Fellow, J. A. Craig, B.A.Sc.

Surveying and Geodesy :

Professor, L. B. Stewart, D.T.S.
Demonstrator, A. T. Laing, B.A.Sc.

Electricity :

Professor, T. R. Rosebrugh, M.A.
Fellow, W. G. Chace, Grad. S.P.S.

Mathematics :

Professor, Alfred Baker, M.A.
Lecturer, A. T. DeLury, M.A.
Fellow, E. F. Burton, B.A.

Physics :

Professor, James Loudon, M.A., LL.D.
Demonstrator, W. J. Loudon, B.A.
Lecturer, C. A. Chant, M.A., Ph.D.
Demonstrator, J. C. McLennan, B.A., Ph.D.
Mechanical Assistant, J. S. Plaskett, B.A.
Lecture Assistant, G. R. Anderson, M.A.

Biology :

Professor, R. Ramsay Wright, M.A., B.Sc., LL.D.

Number of students by Years :

First year	147
Second year	81
Third year	45
Fourth year	15
Occasional	2
	290

Number of students by departments :

1. Civil Engineers	73
2. Mining Engineers	69
3. Mechanical and Electrical Engineers	139
4. Architecture	2
5. Applied Chemistry	7
	290

ADDENDUM F—THE LIBRARY.

The Librarian of the University of Toronto begs to submit his annual report for the year ending June 30th, 1902 :

1. The number of bound volumes added to the Library during the year was 4,201, of which 2,150 were presentations, making the total contents of the Library 72,337 volumes. The number of pamphlets added during the year

was 1,484. The total number of pamphlets, of which no accurate account was kept until the last few years, now exceeds 22,500.

2. During the Session 1901-2 the average daily attendance of readers is estimated at 79. The largest number counted was 146, in the morning of February 19th, and 140 and over were also counted on three other occasions during March and April. The statistics of the use of books by students are as follows, comparisons being made with similar statistics for the previous year :

	1900-1.	1901-2.
Average number of books	762	766
Average number of books taken out by students for the night, per week	332	320
Total number of books taken out by students for periods longer than one night	3482	3687

Under the arrangement for giving students access to the stack-room on recommendation of a professor, 27 persons were admitted during the year for various periods. The similar figures for 1900-1 and 1899-1900 are 26 and 19 respectively.

3. The number of institutions and learned societies on the exchange list of the Library, to which the University of Toronto Studies and the University Calendar and Examination Papers are sent, is now 410. The Library receives 170 periodicals and serial publications in return, besides University Calendars and many occasional publications from institutions included in the above total of 410 to which the University publications are sent.

4. The chief necessity of the Library noted in the report for last year was a cataloguer. The Trustees had not been able to make an appropriation for the salary of a cataloguer up to the close of the year covered by this report, but an allowance for the purpose has been included in the estimates for the year 1902-3.

5. The absence of reading-room accommodation for Professors and other members of the Faculties, which has always been a defect in the Library building, is increasingly felt, owing to the continual additions that are made to the teaching body. Hitherto the room used for storing the current numbers of periodicals has done duty as a reading-room for the professors. It is also, however, the only available working-room for one of the assistants, and as the tables in that room are frequently covered either with unbound volumes of periodicals in course of preparation for sending to the binder, or with volumes that have come up from the binder and are in process of being checked and verified, it is obvious that there is no proper accommodation there for members of the Faculties desirous of working in close proximity to the collection of books. For the cataloguer, when appointed, a space will have to be found in the receiving room for new books, or in the Professors' reading-room, which, as just mentioned, is already used for accommodation of books bound or to be bound. It is probable that the cataloguer will be shifted from one to the other room according to the exigencies of the situation, and may even have to do her work occasionally among the students in the reading-room. It need hardly be pointed out that such paucity of office accommodation is unknown in any other modern library.

It is respectfully urged, therefore, that it is a most pressing need of the University to have an addition built to the Library building to provide a proper reading-room for members of the Faculties and additional accommodation for administrative purposes.

6. The following is a list of some notable books included in the Scadding bequest added to the shelves during the year 1901-2 :

Herp. Speculum aureum decem praeceptorum Dei. Mainz, Schoeffer, 1474.
Bonaventure, Speculum beatae Mariae virginis. Augsburg, Sorg., 1477.
Peter Lombard, Libri sententiarum, 1468.
Joh. Gritsch, Quadragesimale, 1479.
Missale Babenbergense. Bamberg : Pfeyl, 1499.
Tortellius, Commentaria grammatica. Venice: Tacuinus, 1495.
Nestor, Vocabulista. Venice : Pinzius, 1496.
Perottus, Rudimenta grammatices. Brescia, ca 1475.
Pomponius Laetus, Romanae Historiae Compendium. Venice, 1499.
Dominicus de Sto Geminiano, Lectura prima super sexto libro decretalium. Venice: Rubeis, 1476.
Jacopo de Voragine, Lombardica historia (Golden Legend). Strassburg, 1490.

Other early printed or rare editions:

Chaucer, Works, ed. Speght, 1602.
Pope, Works, 1st collected edition of his miscellaneous poems, 1717.
Milton, Paradise Lost, 3rd ed., 1678.
Sidney (Sir P.), Countesse of Pembroke's Arcadia, 8th ed., 1633.
Spenser, Faerie Queen and other works, 1st folio ed., 1611.
Speculum intellectuale felicitatis humane, etc. Nuremberg Pinder, 1510.
Virgil, Folio ed., Glasgow : Foulis, 1778.
Gerard's Herbal, enlarged by Thos. Johnson, Lond. Adam Islin, 1633.
Erasmus, Hyperaspites, 1st edition, 1526.
Homer, Iliad and Odyssey, 2 vols. Aldus, 1517.

All of which is respectfully reported.

(Sgd.) H. H. LANGTON, Librarian.

ADDENDUM G—BIOLOGICAL MUSEUM.

A list of donations to the Museum during the academic year 1901-2 will be found at page 31 of the Appendix to the Calendar for 1902-3. The most important of these were :

1. A valuable series of specimens illustrative of the Fauna of Borneo —chiefly Mamalian skins and skeletons—from Charles Hose, Esq. Resident, Baram District, Sarawak.

2. Gifts of $125 and $25 respectively from Joseph Kilgour, Esq., and Frederic Nichols, Esq., which made possible the purchase of interesting reptiles from the Galapagos Islands.

Considerable progress has been made with the cataloguing and arrangement of the collections. During the last two years a graduate has been employed in the preparation of a card catalogue, a task which has not hitherto been attempted. The small sum annually appropriated for this purpose is not only more than repaid to the University by the increased usefulness of its collections, but an opportunity is also afforded for the study of systematic Zoology to a student desirous of specializing in this direction. Already upwards of 6,000 cards have been entered ; of these 1,000 refer to 357 species and 217 genera of Mammals ; 4,000 to 1,400 species, and 750 genera of Birds, and nearly 1,000 to 320 species and 150 genera of Reptiles. Four hundred specimens, chiefly duplicates of Invertebrates from the Challenger Collection, secured through the British Museum of Natural History, have also been catalogued. It is hoped that the remainder of the Ver-

tebrates may be completed during the present academic year, and that a compendious description of the most interesting features of the Collection may thereafter be published in the University Studies.

The proper arrangement of the large series of skins presented by the Trustees of the British Museum of Natural History, and the inadequacy of the show-cases to display without crowding mounted specimens of Birds and Mammals in our possession, render necessary a further provision of show-cases. I beg to recommend, therefore, that combined storage and show-cases be provided for the east walls of the ground floor, at a cost of $1,500.

In view of the circumstance that the room now occupied by the Ferrier Collection of Minerals, but originally intended for the Botanical side of the Biological Museum, will be vacated in the near future, I beg to suggest that the Lecturer in Botany be invited in association with myself to prepare a report on the necessary fittings and equipment.

R. RAMSAY WRIGHT,
Curator.

ADDENDUM H—PATHOLOGICAL MUSEUM.

The University of Toronto Medical Faculty Museum of Pathology contains at present about 800 specimens, and is being continually added to from month to month.

The majority of the specimens have been preserved in alcohol, and have the faults of alcoholic specimens, but during the past year a modification of the Raiserling Method of preparation has been adopted, and it is intended in time to eliminate the older alcoholic specimens and substitute for them those in which the natural colours are as far as possible preserved.

Most of the specimens are still preserved in cylindrical jars, but for these the rectangular jars are gradually being substituted.

A decimal method of classification has been adopted, which will enable the Curator to add specimens without altering the numbering of those already on the shelves.

(Signed) J. J. MACKENZIE,
Curator.

ADDENDUM J—CHEMICAL LABORATORY.

To James Loudon, Esq., LL.D.,
President of the University of Toronto ;

Sir,—I have the honor to inform you that, through the kindness of friends interested in the chemical manufactures of Great Britain, an extensive collection of specimens of pure chemicals, refined metals and by-products, have been presented to the University. These specimens, amounting to more than five hundred in number, have been properly arranged in the Chemical Laboratory, and are now in daily use as lecture illustrations.

Particulars are contained in the following list :

Messrs. Tyrer and Co., London : Compounds of mercury, tin, bismuth, phosphorus, copper, zinc, and aluminum, along with specimens of the pure metals.

Manchester Alum Works : Large crystals of the alums, and of the native Bauxites from which they are made.

Sir James King, Bart., of Campsie : Two large srystals of yellow and red prussite of potash, each standing about a foot high.

Mr. George Beilby, of the Oakbank Oil Company : Specimens of the bituminous shales used first by the late Dr. James Young, for the production of naptha, lighting and lubricating oils, and solid paraffin waxes.

Dr. Ludwig Mond, F.R.S.: Specimens of soda crystals and other alkali products from the famous Brunner Mond Works.

The United Alkali Company: Alkali and bleaching products, with specimens of "black ash," "Weldon's mud," and of the materials used at the various stages in the production of soda and of bleaching powder.

The Glasgow Lead and Color Works: Series of Mineral pigments and several "wickets" of lead, before and after their conversion into white lead.

Lord Overtoun: Complete series of compounds of chromium, including a magnificent rose or crystal of bichromate of potash, in height about a foot and proportionately broad. This crystal was specially grown for me, and took about a year to reach its present size.

Messrs. Broadfoot & Sons: A selection of brass and gun-metal alloys, showing fractures with the breaking strains, and analyses attached.

The British Dyewood and Chemical Company: Natural dyewoods and extracts.

The Dominion Dyewood and Chemical Company (per Mr. M. J. Taylor): A collection of coal tar colors manufactured at the Elberfeld Works.

The University is indebted to Messrs. Allan, of Montreal, and to the Grand Trunk Railway for free transportation of the specimens.

I trust to be able to secure further additions to the collection year by year.

I have the honor to be, Sir,
Your obedient servant,
(Signed.) W. R. LANG,
Curator.

February 2nd, 1903.

ADDENDUM K—"UNIVERSITY OF TORONTO STUDIES."

University of Toronto Library, January 8th, 1903.

To the President of the University of Toronto:

Sir,—I beg to submit the following report of "University of Toronto Studies" for the year 1902:

1. The publication of University of Toronto Studies was commenced in the year 1898 by the aid of a Legislative grant of $500, subsequently increased to $600 per annum. An annual sum is also contributed by the University Library as an equivalent for the use of the Studies as Library exchanges.

2. The following list of the published Studies, arranged by years, will show the considerable dimensions to which the Studies have attained on the small sum allowed annually:

In 1898:

History—Review of Historical Publications relating to Canada. Vol. 2, edited by Professor Wrong and H. H. Langton.

Economics—Public Debts in Canada, by J. Roy Perry.

Psychology—Spatial Threshold of Colour, by W. B. Lane and others.

Biology—Gametophyte of Botrychium Virginianum, by E. C. Jeffrey. (Reprint from Canadian Institute Transactions.)

In 1899:

History—Review of Historical Publications relating to Canada. Vol. 3, edited by Professor Wrong and H. H. Langton.

Psychology—Contribution to the Psychology of Time, by Messrs. Shaw and Wrinch.

Psychology—Experiments on Time Relations of Poetical Metres, by Messrs. Hurst and McKay.

In 1900 :

History—Review of Historical Publications, Vol. 4, edited by Messrs. Wrong and Langton.

History—Preliminary Stages of the Peace of Amiens, by H. M. Bowman.

Psychology—Conceptions and Laws in Aesthetics, by Prof. Kirschmann; Experiments in Colours (2 papers), by Miss Baker and W. J. Dobbie.

Geology—The Huronian of the Moose River Basin, by W. A. Parks.

Physiology—Structure, etc., of Nerve-Cells, by F. H. Scott. (reprint from Canadian Institute Transactions.)

Physiology—On the Cytology of Non-Nucleated Organisms, by Professor Macallum (reprint from Canadian Institute Transactions.)

Anatomy—Anatomy of the Orang-Outang, by Professor Primrose, (reprint from the Canadian Institute Transactions).

In 1901 :

History—Review of Historical Publications, Vol. 5, edited by Messrs. Wrong and Langton.

History—Early Trading Companies of New France, by H. P. Biggar.

Physiology—Observations on Blood Pressure, by R. D. Rudolf.

In 1902 :

History and Economics—Review of Historical Publications, Vol. 6, edited by Messrs. Wrong and Langton.

History and Economics—City Government in Canada (3 papers), by Messrs. Wickett and Lighthall.

Psychology—Conception and Classification of Art from a psychological standpoint, by Professor Kulpe (University of Wuerzburg); Experiments on Colour and Light (3 papers), by Miss Baker and Messrs. Wilson and Abbott.

Biology—On the Identification of Meckelian and Mylohyoid Grooves, etc., by B. A. Bensley.

Biology—Anatomy of the Osmundaceae, by J. H. Faull, (reprint from Botanical Gazette.)

Geology—Michipicoten Iron Ranges, by Professor Coleman and A. B. Wilmott.

3. The increase last year in the number of subjects and departments represented points to the more general interest in the publication taken by the members of the Faculties. Papers are now under consideration in subjects such as Philology and Philosophy, in which no studies have yet been issued. With the growth of the recognition of the University of Toronto Studies as a vehicle of publication by members of the University the difficulty of making the present annual grant suffice is becoming greater. Many papers by members of the Faculties are now printed in American and English scientific journals which would increase the reputation of the University as well as of their authors if they could be issued as University of Toronto Studies. The publication of some valuable works has already been postponed for want of funds, and others on early Canadian History embodying the results of researches in Europe are known to be in preparation, which it will be impossible to accept unless the existing grant is increased. Without any departure from the present high standard of the papers accepted, an annual grant of $1,000 would be no more than sufficient to maintain the Studies on the lines originally projected, viz., as a publication in the interests of scientific research especially as carried on in the University of Toronto.

All of which is respectfully submitted,

H. H. LANGTON, General Editor.

ADDENDUM L—MARINE BIOLOGICAL STATION OF CANADA.

To the President of the University of Toronto :

Sir,—I beg to submit the following memordum with regard to work at the Biological Stations at Canso and the Georigan Bay.

Canso Station.

Since this station was established four years ago, the members of the Biological Staff of the University have co-operated heartily in its work, and the University has made it possible for some of its younger graduates to associate themselves therewith by making an annual appropriation to cover their travelling expenses to the distant parts of the Dominion (St. Andrews, N.B., Canso, N.S.) where it has been situated. The report of the first two seasons' work contains contributions from various members of the University, and the forthcoming report dealing with the last two seasons during which the undersigned has acted as Assistant Director, will indicate continued activity.

Georgian Bay Station.

The Department of Marine and Fisheries, taking advantage of the existence of a summer colony from the University on the Georgian Bay, has begun investigations on the Biology of the Great Lakes, in which members of the University have been active.

I have the honor to be, Sir,

Yours faithfully,

(Signed) R. RAMSAY WRIGHT.

ADDENDUM M.—FINANCIAL STATEMENTS.

FACULTY OF ARTS.

Receipts—1901-1902.

Interest on purchase moneys	2,180 59
" loans	16,072 37
" debentures	11,738 23
" bank balances (including interest on advances to Medical Faculty)	717 05
Rentals, University Park Lands	12,697 69
" business properties	3,821 40
" School of Science site	925 00
" Biological Building (Medical Faculty)	1,900 00
" Board of Health	200 00
" City of Toronto (park)	6,000 00
" Sundry earnings	2,590 51
University Fees (including Library and Gymnasium)	49,877 43
Legislative Grant	7,000 00
Wild lands sales	2,874 87
	$118,595 14
Reserve for interest on Retirement Fund, Scolarship and other Trust Funds	8,080 69

Expenditure, 1901-1902.

Summary.

1. Salaries and Pensions—	
(*a*) Salaries	85,148 00
(*b*) Pensions	2,800 00
2. Bursar's Office	749 66
3. Registrar's Office	2,023 94
4. Vice-Chancellor's Office	700 00

5.	President's Office	326 25
6.	Law Costs	1,495 00
7.	General Incidentals	784 75
8.	Insurance	1,800 00
9.	Telephones	217 50
10.	Convocation Expenses	800 52
11.	Examinations	5,225 00
12.	Library	2,335 07
13.	Grounds	2,748 00
14.	Main Building	3,999 25
15.	Biological Department—	
	(*a*) Maintenance of Structure	2,547 97
	(*b*) Maintenance of Department	2,584 62
16.	Physiological Department	700 00
17.	Psychological Department	150 00
18.	Mathematics	73 50
19	Political Science	25 00
20	History	16 15
21.	Italian and Spanish	20 00
22.	Advertising (University)	399 79
23.	Incidentals (University)	174 52
24.	Classics	5 75
25.	English	100 00
26.	French	40 00
27.	German	9 84
28.	Oriental Literature	25 00
29.	Stationery (University College)	75 00
30.	Printing "	75 00
31.	Advertising "	99 70
32.	Incidentals "	49 81
33.	Gymnasium and Student's Union	1,125 26
34.	Senate Elections	329 00
35.	Royal Society of Canada	100 00
36.	University Press	246 27
	Total Expenditure (exclusive of Departments sustained by Government)	$120,125 12

Details of Expenditure.

Salaries.

1.	Bursar's Office :	
	Bursar	2 000 00
	Accountant	1,200 00
	Fees Clerk	600 00
		3,800 00
2.	Library :	
	Librarian	2,000 00
	First Assistant	500 00
	Second Assistant	487 50
	Third Assistant	162 50
	Two Delivery Clerks	400 00
	Caretaker	487 50
		4,037 50
3.	University of Toronto, general :	
	President (also paid as Professor of Physics)	1,800 00
	Registrar	1,500 00
	Registrar's Stenographer	321 50
	Bedell (with free house)	600 00
	Architect	100 00
	Janitor	450 00
	Gardener	440 00
	Engineer (with rooms and fuel)	576 00
	Fireman (salary at $35 per month for eight months)	280 00
	Carpenter	620 00

Cleaners	480 00
Messenger	142 00
	7,309 50
4. Pensions :	
E. J. Chapman	1 800 00
J. M. Hirschfelder	1,000 00
	2,800,00
5. Teaching Staff, etc., University of Toronto :	
(*a*) Modern History and Ethnology :	
Professor	3,175 00
(*b*) Political Science :	
Professor	3,200 00
Professor of Constitutional and International Law	750 00
Professor of Roman Law, Jurisprudence and History of English Law	750 00
Lecturer (sessional)	1,000 00
	5,700 00
(*c*) Mathematics :	
Professor	3,200 00
Associate Professor	1,800 00
Fellow	500 00
	5,500 00
(*d*) Biology :	
Professor	3,200 00
Lecturer in Zoology and Assistant Curator Museum (one term in 1901-2, new appointment)	500 00
Lecturer in Biology and Histology (Laboratory only in 1901-2, new appointment)	450 00
Demonstrator	325 00
Class Assistant in Histology (sessional)	150 00
Lecture and Laboratory Assistant (sessional)	250 00
Class Assistants (6 at $50) (sessional)	300 00
Sub-Curator Museum	750 00
Attendant and Caretaker	500 00
Laboratory and Museum Attendant	150 00
	6,575 00
Sub-department of Botany :	
Lecturer	1,800 00
Instructor (sessional)	250 00
	8,625 00
(*e*) Physiology :	
Professor	2,500 00
Demonstrator (sessional)	600 00
	3,100 00
(*f*) Italian and Spanish :	
Professor	2,500 00
Instructor in Italian (sessional)	400 00
Instructor in Spanish (sessional)	50 00
	2,950 00
(*g*) Philosophy :	
Associate Professor	1,900 00
Lecturer	1,475 00
Lecturer (sessional)	1,000 00
Laboratory Assistant (sessional)	200 00
	4,575 00
6 Teaching Staff, University College :	
(*a*) Ethics, Professor	3,200 00

(*b*) Greek :	
Professor	3,200 00
Lecturer	1,800 00
	5,000 00
(*c*) Latin :	
Professor	3,075 00
Lecturer	1,800 00
Lecturer	1,475 00
	6,350 00
(*d*) Oriental Literature :	
Professor	3,200 00
Lecturer	1,475 00
	4,675 00
(*e*) English :	
Professor	3,200 00
Lecturer	1,800 00
	5,000 00
(*f*) French :	
Professor	2,500 00
Lecturer	1,800 00
Instructor	750 00
	5,050 00
(*g*) German :	
Professor	2,500 00
Lecturer	1,800 00
Instructor	1,000 00
	5,300 00
7. University College, general :	
Principal (9 months)	225 00
8. Gymnasium :	
Secretary	200 00
Instructor	800 00
Caretaker	576 00
	$1,576 00

Expenses.

2. Bursar's office :	
Stationery, postage, printing and incidentals	449 66
Auditor	300 00
	749 66
3. Registrar's office :	
Stationery and office supplies	261 70
Postage	340 00
Printing, other than Calendar	270 88
Printing Calendar and Curricula	1,151 36
	2,023 94
4. Vice-Chancellor's office :	
Honorarium	400 00
Expense indemnity	300 00
	700 00
5. President's office :	
Secretarial allowance	200 00
Postage and incidentals	35 60
Travelling expenses	91 65
	326 25
6. Law costs	1,495 00
7. General incidentals, including commissions on real estate transactions	784 75

8. Insurance		1,800 00
9. Telephones		217 50
10. Convocation expenses		800 52
11. Examinations :		
(*a*) Remuneration to examiners :		
Arts		677 45
Medicine		1,386 35
Law		120 00
Engineering and Applied Science		200 00
Dentistry		323 00
Agriculture		277 28
Music		87 05
Pharmacy		430 86
Pedagogy		120 00
Matriculation		95 00
		3,716 89
(*b*) Stationery and supplies		547 61
(*c*) Cost of printing examination papers and class lists		1,265 50
		5,530 00
Less Government share for departments of Chemistry and Physics		305 00
		5,225 00
12. Library :		
(*a*) Maintenance :		
Fuel		334 56
Water		16 98
Cleaning		175 00
Repairs and Incidentals		108 53
		635 07
(*b*) Customary grant for books		1,700 00
(Further appropriation from Library Book Funds, $3,868.92)		
13. Grounds :		
Labour, tools, gravel, etc		2,748 00
14. Main Building :		
Repairs, (including carpentry and plumbing,) and sundries		1,921 29
Dynamo		1,141 52
Fuel		2,098 98
Water		243 16
Gas and Electric Light		319 30
		5,724 25
Less Government share for Department of Physics		1,725 00
		3,999 25
15. Biological Building :		
(*a*) Maintenance of Structure:		
Fuel		888 56
Gas and electric light		208 34
Water		92 07
House furnishings and cleaning materials		195 94
Repairs, including carpentry and plumbing		578 50
Additional attendance and cleaning assistance		253 75
Extraordinary expenditure		430 81
		2,647 97
Less Government share for Department of Mineralogy and Geology		100 00
		2,547 97
(*b*) Biological Department :		
Laboratory and Lecture Room supplies		351 74
Museum supplies		617 78
Marine and Lake laboratories		171 90

	Students' laboratory supplies	744 75
	Assistance in preparation of catologue	225 00
	New microscopes	473 45
		2,584 62
16.	Physiological Department :	
	Maintenance, apparatus, etc	700 00
	Students' laboratory supplies	
		700 00
17.	Psychological Department :	
	Maintenance	150 00
18.	Mathematics	73 50
19.	Political Science :	
	Class room supplies	25 00
20.	History :	
	Class room supplies	16 15
21.	Italian and Spanish :	
	Class room supplies	20 00
22.	Advertising	399 79
23.	Incidentals	174 52
	University College Departments.	
24.	Classics :	
	Greek class room supplies	
	Latin class room supplies	5 75
25.	English :	
	Class room supplies and provision for reading essays	100 00
26.	French :	
	Class room supplies	40 00
27.	German :	
	Class room supplies	9 84
28.	Oriental Literature :	
	Class room supplies	25 00
29.	Stationery	75 00
30.	Printing	75 00
31.	Advertising	99 70
32.	Incidentals	49 81
33.	Gymnasium and Students' Union :	
	Fuel	366 99
	Water	131 88
	Gas	89 40
	Cleaning	80 65
	Repairs and incidentals	117 51
	Apparatus, labor, etc., (including new lockers in 1901-2)	338 88
		1,125 26
34.	Senate elections :	
	Allowance to scrutineers and assistants	129 50
	Postage, printing and incidentals	199 50
		329 00
35.	Royal Society of Canada, towards expenses of meeting	100 00
36.	University Press :	
	Portion of $2,000 remaining to be provided for cost of presses and type	246 27
	Additions to type and equipment	
	Incidental expenses	
		246 27

DEPARTMENTS MAINTAINED BY GOVERNMENT.

Summary.

	Chemistry :	
	Salaries	8,204 75
	Maintenance	3,585 00

2. Physics :		
Salaries		10,350 00
Maintenance		3,525 00
3. Mineralogy and Geology :		
Salaries		3,575 00
Maintenance		891 79
4. Examination expenses :		
Share of Chemistry and Physics		305 00
		30,436 54
1. Chemistry :	Details.	
(*a*) Salaries :		
Professor		2,600 00
Associate Professor		1,900 00
Lecturer		1,075 00
Lecturer		1,075 00
Assistant (sessional)		500 00
Assistant (sessional)		400 00
Attendant		504 00
Cleaner		150 75
		8,204 75
(*b*) Maintenance of Building :		
Fuel		564 40
Gas and electric light		183 04
Water		138 17
Cleaning		110 00
Repairs and incidentals		272 61
Fitting up physical chemical laboratory		1,316 78
		2,585 00
(*c*) Maintenance of department :		
Chemicals and glassware		1,000 00
		1,000 00
2. Physics :		
(*a*) Salaries :		
Professor		3,200 00
Associate Professor		1,800 00
Associate Professor		1,800 00
Lecturer		1,800 00
Mechanical assistant		1,000 00
Laboratory assistant (sessional)		650 00
Lecture assistant (sessional)		100 00
		10,350 00
(*b*) Maintenance of department :		
Supplies, apparatus, etc		1,800 00
Proportions of fuel, water, light, cleaning, repairs, and incidentals, Main Building account		1,725 00
3. Mineralogy and Geology :		3,525 00
(*a*) Salaries :		
Professor Geology		500 00
Professor Mineralogy (9 months in 1901-2)		1,875 00
Lecturer		1,000 00
Attendant		200 00
		3,575 00
(*b*) Maintenance of Department :		
Apparatus for Mineralogy		.....
Apparatus for Geology		.....
Supplies and sundries, including students' supplies		791,79
Proportion of fuel, light, water, cleaning, repairs, and incidentals, Biological Building account		100 00
		891 79

4. Departments of Chemistry and Physics :
Share of examination expenses :

Chemistry		180 00
Physics		125 00
		305 00

MEDICAL FACULTY.

Income.

First year	$12,051 00	
Less Arts portion	1,610 00	
		$10,441 00
Second year	$10,950 00	
Less Arts portion	1,590 00	
		9,360 00
Third year		9,417 00
Fourth year		5,530 00
Miscellaneous fees		1,090 00
Registration fees		645 00
Psychological fees (collected for Dr. Daniel Clark)		265 00
Interest on bank account		346 21
		$37,094 21

Expenditures.

Salaries		$24,615 73
Rents of :		
Biological building	$1,900 00	
Gerrard street building	1,000 00	
		2,900 00
Interest on University advance 4% on $3,200	$128 00	
Repayment of part of advance	800 00	
		928 00
Working expenses		8,650 48
		$37,094 21

Professors.

Dr. A. Primrose	Anatomy	$1,500 00	
Dr. J. J. Mackenzie	Pathology	1,500 00	
I. H. Cameron	Surgery and Clinical Surgery	1,101 00	
Dr. A. McPhedran	Medicine and Clinical Medicine	1,101 00	
Dr. W. Oldright	Hygiene	1,101 00	
Dr. B. Spencer	Medical Jurisprudence	1,101 00	
Dr. A. H. Wright	Obstetrics	1,101 00	
Dr. U. Ogden	Gynaecology	734 00	
Dr. J. M. MacCallum	Pharmacology and Therapeutics	734 00	
Dr. R. A. Reeve	Opthalmology, etc	440 32	
Dr. G. R. McDonagh	Laryngology, etc	440 32	
Dr. W. H. Ellis	Toxicology	366 93	
			$11,220 57

Associate Professors.

Dr. G. A. Peters	Surgery and Clinical Surgery	$1,101 00	
Dr. G. H. Burnham	Opthalmology	293 60	
Dr. H. W. Aikins	Anatomy	734 00	
Dr. W. P. Caven	Clin. Medicine	734 00	
Dr. L. M. Sweetnam	Clin. Surgery	528 20	
Dr. H. A. Bruce	do	528 20	
Dr. J. F. W. Ross	Gynaecology	264 20	
Dr. H. T. Machell	Obstetrics, etc	308 19	
Dr. W. B. Thistle	Clin. Medicine, etc	528 19	
Dr. F. N. G. Starr	Clin. Surgery, etc	396 19	
Dr. J. A. Amyot	Pathology, etc	440 19	
C. F. Heebner	Pharmacology	440 20	
			6,296 14

Lecturers.

Dr. G. Boyd	Clinical Medicine	$293 60	
Dr. R. D. Rudolph	Med. and Clin. Medicine	367 00	
Dr. R. J. Dwyer	do do	367 00	
			1,027 60

Demonstrators and Assistant Demonstrators.

Dr. F. N. G. Starr	Anatomy	$150 00	
Dr. W. J. McCollum	do	100 00	
Dr. A. A. Small	do	100 00	
Dr. W. J. O. Malloch	do	100 00	
Dr. S. H. Westman	do	100 00	
Dr. E. R. Hooper	do	100 00	
Dr. W. J. Wilson	do	100 00	
Dr. C. L. Starr	do	100 00	
Dr. A. C. Hendrick	do	50 00	
Dr. A. J. Mackenzie	do	50 00	
Dr. D. McGillivray	do	50 00	
Dr. W. Goldie	Laboratory, Bacteriology	250 00	
Dr. G. Silverthorne	Pathology, etc	100 00	
Dr. C. J. Wagner	do	100 00	
Dr. T. D. Archibald	do	50 00	
Dr. M. M. Crawford	do	50 00	
Dr. A. R. Gordon	Clinical Medicine	176 28	
Dr. G. Chambers	do	176 28	
Dr. W. McKeown	Clinical Surgery	176 28	
Dr. C. L. Starr	do	176 28	
Dr. K. C. McIlwraith	Obstetrics	176 28	
			2,431 40

General Service.

Dr. A. Primrose	Secretary to Faculty	$900 00	
Dr. J. J. Mackenzie	Assistant Secretary	100 00	
do	Curator of Museum	300 00	
Thos. Motton	Janitor and Caretaker at Medical School Building	720 00	
George Lynne	Attendant and Caretaker at Anatomical Department	660 00	
John Anderson	Additional attendant during session only (Anat. Dept.)	245 00	
Louis Meyer	Boy Messenger and attendant	200 00	
			3,125 00

Miscellaneous.

Dr. Daniel Clark	Psychology fees collected for him	$265 00	
Dr. J. H Richardson	Honorarium as retired Professor	250 00	
			515 00
Total			$24,615 73

FACULTY OF APPLIED SCIENCE AND ENGINEERING.

(School of Practical Science.)

EXPENDITURE.

Summary.

Salaries	$25,425 00
Expenses	4,331 71
Maintenance and Repairs	5,154 02
Instruction by Arts Faculty	1,575 00
Examiners	1,054 15
	$37,539 88
Receipts from fees	$20,059 50
Showing a difference of	$17,480 38

being the excess of expenditure over receipts supplied from vote of Legislature.

DETAILS OF SALARIES.

Principals and Professors.

J. Galbraith	Principal and Prof. of Engineering	$3,000 00
W. H. Ellis	Professor of Applied Chemistry	1,500 00
A. P. Coleman	Professor of Metallurgy and Assaying	2,000 00
L. B. Stewart	Professor of Surveying	1,700 00
C. H. C. Wright	Professor of Architecture	1,800 00
T. R. Rosebrugh	Professor of Electrical Engineering	1,700 00
		$11,700 00

Lecturers.

J. A. Duff	Lecturer in Applied Mechanics	$1,300 00
G. R. Mickle	do in Mining	1,200 00
R. W. Angus	do in Mechanical Engineering	1,200 00
		$3,700 00

Demonstrators.

A. T. Laing	Demonstrator in Surveying and Assist. Secretary	$1,050 00
J. W. Bain	do in Analytical Chemistry	850 00
W. Monds	do in Mechanical Engineering (3 mos.)	75 00
		$2,075 00

Fellows and Assistants.

J. T. M. Burnside	Fellow in Civil Engineering	$500 00
M. B. Weeks	do in Mining (9 mos.)	375 00
A. H. Robinson	do in Mining (3 mos.)	125 00
A. H. Robinson	do in Chemistry (9 mos.)	375 00
E. G. R. Ardagh	do in Chemistry (3 mos.)	125 00
A. H. Harkness	do in Applied Mechanics	500 00
F. C. Smallpiece	do in Electricity (9 mos.)	375 00
W. G. Chase	do in Electricity (3 mos.)	125 00
W. Monds	do in Mechanical Engineering (9 mos.)	375 00
J. A. Craig	do in Mechanical Engineering (3 mos.)	125 00
J. A. DeCew	Lecture Assistant (3 mos.)	125 00
		$3,125 00

Attendants.

D. Sinclair	Attendant in Chemistry	$500 00
G. Lamb	do in Metallurgy	350 00
E. Tozer	do in Mining (8 mos.)	160 00
W. J. Graham	Caretaker	750 00
W. Simpson	Engineer	800 00
A. F. Mackay	Fireman (8 mos.)	320 00
W. Scott	Night Fireman (4 mos.)	180 00
		$3,060 00

ADDENDUM N—LIST OF PAPERS AND WORKS BY MEMBERS OF FACULTIES AND RESEARCH STUDENTS FOR THE YEAR 1901-1902.

Allan, F. B.: The Sulphates of Bismuth. (American Chem. Journal, Vol. XXVII, No. 4.)

Amyot, J. A.: Is the Bacillus Coli Communis a normal inhabitant of the intestines of fishes ? (Report of American Public Health Association, 1901-2.)

Baker, Alfred : Correlation of the Curve of the Second Order and the Sheaf of Rays of the Second Order in Geometry of Position. (Read before the Roy. Soc. of Canada, May, 1902; Proceedings and Trans. of Roy. Soc. of Canada, 1902.)

Benson, Miss C. C.: The rate of oxidation of ferrous salts by Chromic acid. (Read before the Roy. Soc. of Canada, May, 1902; Proceedings and Trans. of Roy. Soc. of Canada, 1902. Subsequently published in Jour. Phys. Chem. VII, p. 1, 1903.)

Cameron, J. H.: The Elements of French Composition. (New York, 1901. Henry Holt & Co.)

Carson, C. M.: See under Lang, W. R.

Chant, C. A.: An experimental Investigation into the 'Skin' effect in Electrical Oscillators. (Amer. Jour. of Sc., Jan., 1902, pp. 1-19; Phil. Mag. Apr., 1902, pp 425-444.) Invisible Light. (Acta Victoriana, Jan., 1902.)

Coleman, A. P.: Iron Ranges of Northern Ontario. (Bureau of Mines of Ontario.) The Michipicoton Iron Range. (Bureau of Mines of Ontario.) Rock Basins of Helen Mine, Michipicoton. (Bulletin of the Geol. Soc. of Amer. 1902.) Duration of the Toronto Interglacial Period. (Amer. Geol. Vol. XXIX, Feb., 1902.) Nepheline and other Syenites in Ontario. (Amer. Jour. of Sc. Vol. XIV, Aug., 1902.) The Michipicoton Iron Ranges. (University of Toronto Studies, 1902.)

Faull, J. H.: The Anatomy of the Osmundaceae. (Bot. Gazette, Dec., 1901; University of Toronto Studies, 1902.)

Fields, J. C.: The Riemann-Roch Theorem, and the Independence of the Conditions of Adjointness in the case of a Curve for which the Tangents at the Multiple Points are distinct from one another. (Crelle's Journal, Berlin, Jan., 1902.) Algebraic Proofs of the Riemann-Roch Theorem and of the Independence of the Conditions of Adjointness. (Acta Mathematica, Abel Number, Stockholm.) An equivalent for Pluckers Formulae. (Read before the Chicago Section of the Amer. Math. Soc. Abstract in the Bulletin of the Amer. Math. Soc.) Forms for the Abelian Integrals of the three kinds. (Read before Section III, of the Roy. Soc. of Canada, 1902; Proceedings and Trans. of Roy. Soc. of Canada, 1902.)

Fraser, W. H.: Modern Languages Abroad. (Proceedings of Ontario Educational Association, 1901.)

Fraser, W. H., and Squair, J.: French Grammar and Reader. (D. C. Heath and Co., Boston, 1901.)

Jeffrey, E. C.: The Structure and Development of the Stem in Pteridophyta and Gymnosperms. (Phil. Trans. of the Roy. Soc. Abstract in Proceedings of Roy. Soc.)

Kenrick, F. B.: See under Miller, W.L. The following paper was prepared under the direction of Dr. Kendrick by a student of the Third year: McBain, J. W. The Oxidation of Ferrous Solutions by Free Oxygen. (Jour. Phys. Chem. V. 623, 1901.)

Kirschmann, A.: Zum Problem der Grundlagen der Tiefenwahrnehmung. (Regarding the problem of the basis of Depth-perception.) (Phil. Studien. Vol. XVIIIL.) No. I, Vol. II Psychological Series, University of Toronto Studies, containing the following papers: The conception and classification of Art from a Psychological Standpoint by Professor Oswald Kuelpe (University of Wuerzburg): Experiments on the Aesthetic of Light and Color. Second Article : Spectrally pure Colors in binary Combinations, by Emma S. Baker ; On Color Photometry and the Phenomenon of Purkinge, by R. S. Wilson; Experiments on the Function of Slit-form Pupils, by W. J. Abbott.

Lang, W. R., and Carson, C. M.: The Separation of Arsenic, Tin, and Antimony. (Jour. of the Soc. of Chem. Industry, June 16th, 1902.) Solubility of the Sulphides of Arsenic, Antimony and Tin. (Jour. of the Soc. of Chem. Industry, Aug. 15, 1902.)

Langton, H. H., and Wrong, G. M.: Review of the Historical Publications relating to Canada. (University of Toronto Studies, First Series, Vol. 6.)

Loudon, J: A Century of Progress in Acoustics. (Trans. of R. S. C., Vol. VII, 1901-02.) Address as President of the Royal Society of Canada at Toronto meeting, May 27th, 1902. (Proc. and Trans. of the Roy. Soc. of Canada, 1902.) (And in Science, N.S., Vol. XV, No. 391.) Rudolph Koenig. (University of Toronto Monthly, November, 1901.)

Macallum A. B.: Report on the Micro-Chemistry of Cells (British Association Report 1902.) The following paper was prepared under Dr. Macallum's direction: The Chemistry of Wheat Gluten, by G. G. Nasmith. (Read before the Canadian Institute, May, 1902.)

McCurdy, J. F.: Consulting Editor "Jewish Encyclopaedia" Vol. II, 1902.

McLennan, J. C.: On a Kind of Radioactivity imparted to certain Salts by Cathode Rays. (Phil. Mag. Feb., 1902.) Ueber eine gewissen Salzen durch Kathodenstrahlen erteilte Radioactivitat. (Abstract of preceding paper.) (Phys. Zeitschrift, Sept., 1901.) The following papers were prepared under the direction of Dr. McLennan: Carr, W. R., B.A., On the Potential Difference required to produce Discharge in Gases at Low Pressures. (Trans. Roy. Soc. Canada, V. VIII, 1902-03.) Stewart, R. M., Fourth year student, Excited Radioactivity. (Trans. Roy. Soc. of Canada, V. VIII, 1902-3.)

McPhedran, A.: The Early Recognition and Treatment of Pulmonary Tuberculosis. (The Canadian Journal of Medicine and Surgery, August, 1901.) Nature and Treatment of Pernicious Anaemia. (The London Lancet, Vol. 1., 1902.) Cerebro-Spinal Meningitis. (The Canadian Journal of Medicine and Surgery, March, 1901.) The Home Treatment of Tuberculosis. (The Canada Lancet, December, 1901.) Tuberculosis and the Home. (Dominion Medical Monthly, June, 1902.)

Masson, E.: L'Etude des langues modernes consideree comme un facteur dans la civilisation. (Proc. of Annual Convention of the Ont. Educ. Ass., April, 1902.)

Miller, W. L.: Chemical and Physical Relations. (Proc. of the Convention of the Ont. Educ. Assoc., April, 1902.)

Miller, W. L., and Kenrick: The Identification of Basic Salts. (Trans. Roy. Soc. of Canada, II series 1901-02, Vol. VII, Sec. III, p. 35.) The following papers were prepared by students of the Fourth year, under the direction of Dr. Miller: Bell, J.: The Compensation Method of measuring the rate of oxidation of iodides. (Read before the Roy. Soc. of Canada, May, 1902, subsequently published in Jour. Phys. Chem. VII. Feb., 1903.) Bray, W. C. The rate of reaction in solutions containing potassium chlorate, potassium iodide and hydrochloric acid. (Read before the Roy. Soc. of Canada, May, 1902, subsequently published in Jour. Phys. Chem. VII, Feb., 1903.) Roebuck, J. R.: The rate of the reaction between arsenious acid and iodine in acid Solutions: The rate of the reverse reaction and the equilibrium between them. (Read before the Roy. Soc. of Canada, May, 1902, subsequently published in Jour. Phys. Chem. VI, 363, 1902.)

Murison, R. G.: Totemism in the Old Testament. (Biblical World, Chicago, Sept., 1901.) Babylonia and Assyria—A Sketch of their history. T. T. Clark, Edin. (In the series of Bible Class Primers edited by Prin. Salmon for the U. F. Church of Scotland.) The Mythical Serpents of Hebrew Literature. (University Press.)

Parks, W. A.: Summary Report on the region southeast of Lake Nipigon (Geological Survey of Canada. Summary Report of the Director, 1901.)

Peters, George A.: A new Wrench for use in the correction of Stubborn Deformities. (Canadian Journal of Medicine and Surgery, Dec., 1901.)

A New Method of Cutting Urinary Calculi. (Canadian Practitioner and Review, Jan., 1902.) A case of unusually large Calculus removed by Suprabubic Section. (Canadian Practitioner and Review, Jan., 1902.) (1) A Case of Dilation of the Oesophagus without intrinsic Stenosis. (2) Removal of Foreign Body from the Oesophagus. (Canada Lancet, March, 1902.) Transplantation of Ureters into the Rectum for Exstrophy of the Bladder—by the Author's Extra-Peritoneal Method. (The Canadian Journal of Medicine and Surgery, April, 1902.)

Rudolf, R. D.: A case of Primary Tracheal Diphtheria. Trans. of the Ass. of Amer. Physicians, 1902.) Kernig's Sign, its frequency, causation, and clinical value. (American Medicine, Nov. 8th, 1902.)

Squair, J.: La joie fait peur, by Madame Emile de Girardin, with Biographical Notice, Notes and Composition Exercises. (Toronto, W. J. Gage & Company, 1901.) See also under Fraser, W. H.

Tracy, F.: Fifth edition of Psychology of Childhood, revised throughout, and enlarged by the addition of a chapter on the Aesthetic, Moral, and Religious ideas in Psychic Development. Theories of Knowledge in relation to Teaching. (Proceedings of Ont. Ed. Ass., April, 1902.) Review of Schwarz, Psychologie des Willens, zur Grundlegung der Ethik. (Amer. Jour. of Theology, Oct., 1901.) Review of Mengel, Kant's Begrundung der Religion. (Amer. Jour. of Theology, Oct., 1901.) Review of Wobbermin, Theologie and Metaphysik; das Verhaltnis der Theologie zur Modernen Erkenntnistheorie und Psychologie. (Amer. Journ. of Theology, Apr., 1902.)

Wickett, S. M.: City Government in Canada. (Pol. Sci. Monthly; Canadian Magazine, published with some alterations and additions in No. 1, Municipal series, University of Toronto Studies in History and Economics.) The Municipal Government of Toronto. (Same series, University of Toronto Studies.) Bibliography of Canadian Muncipal Government. (Same Series.) Higher Commercial Education at the University of Toronto. (Proceedings of the Ontario Educational Association.) English Edition of translation of Bucher's Industrial Evolution. (George Bell & Sons.)

Wrong, G. M.: See under Langton, H. H.

APPENDIX M—ANNUAL REPORT OF THE SCHOOL OF PRACTICAL SCIENCE.

To the Hon. R. Harcourt, M.A., M.P.P., Minister of Education :

Sir :—I have the honor to submit the annual report of the School of Practical Science for the year 1902.

The calendar year not being conterminous with the academic year, this report will cover the second term of the academic year, 1901-2, and the first term of the academic year, 1902-3, except when otherwise stated.

The number of students in attendance at the school was as follows :

School of Science Students.

Taking full courses.	2nd Term. Session 1901-2.	1st Term. Session 1902-3.
I Year	133	140
II Year	80	106
III Year	43	66
IV Year	16	22
Taking partial courses	3	4
	275	338

University Students.

	2nd Term. Session 1901-2.	1st Term. Session 1902-3.
Arts	27	28

The students of the School of Practical Science taking full course are required to take University lectures in Mathematics and Physics.

The attendance at these lectures was as follows :

	2nd Term. Session 1901-2.	1st Term. Session 1902-3.
Mathematics	213	246
Physics	235	277

The fees paid by the students of the School of Practical Science for the academic year 1901-2 were $20,059.50.

Of the above amount $1,575 were paid to the Bursar of the University of Toronto under the authority of an Order-in-Council, dated June 25, 1902, $1,054.15 to the Examiners of the school for the session 1901-02 under the authority of an Order-in-Council, dated February 3rd, 1899, and the remainder, $17,430.35, to the Honorable the Provincial Treasurer.

The number of regular students that presented themselves for examination at the annual examinations of the academic year, 1901-02, was two hundred and forty-six. Of these two hundred and three passed.

One candidate for special certificate passed the primary examination.

The number that graduated was forty-one. The total number of graduates to date is three hundred and forty-four.

The following statement shows the geographical distribution of the graduates now living.

	Number.	Percentage.
Canada	243	73
United States	80	24
Other Countries	10	3
	333	100

The number of graduates that proceeded to the Degree of B.A.Sc. at the University examinations of 1902 was seventeen. The total number of graduates that have received the Degree of B.A.Sc. is one hundred and ten.

One graduate proceeded to the Degree of M.E. (Mechanical Engineer) in the University of Toronto. The number of of graduates who have received this degree is three.

Eighteen graduates have received the Degree of C.E., two have received the Degree of M.E. (Mining Engineer), and one has received the Degree of E.E. in the University of Toronto.

The regular courses in the school are :

1. Civil Engineering.
2. Mining Engineering.
3. Mechanical and Electrical Engineering.
4. Architecture.
5. Analytical and Applied Chemistry.

The following statement shows the courses of lectures and practical instruction, the instructors, and the number of students taking the various courses :

Subjects Taught by the Faculty of the School of Science.

Subjects.	Instructors.	Number of Students.	
		2nd Term. Session 1901-1902.	1st Term. Session 1902-1903.
Organic and inorganic chemistry Applied chemistry Assaying	W. H. Ellis, M.A., M.B. Professor J. W. Bain, B.A. Sc., Demonstrator E. G. R. Ardagh, B.A.Sc., Fellow M. C. Boswell, B.A.Sc., Lecture Asst	260	317
Mineralogy Petrography Metallurgy Mining and ore dressing German	A. P. Coleman, M.A., Ph.D., Professor G. R. Mickle, B.A., Lecturer J. G. McMillan, B.A. Sc., Fellow	171	217
Dynamics Strength of Materials Theory of construction Machine design Compound stress Hydraulics Thermodynamics and theory of the steam engine French	J. Galbraith, M.A., Professor J. McGowan, B.A., Lecturer R. W. Angus, B.A.Sc., Lecturer H. G. McVean, B.A. Sc., Demonstrator	268	319
Statics Drawing Architecture Plumbing, heating and ventilation Mortars and cements Brick and stone masonry	C. H. C. Wright, B.A.Sc., Professor A. H. McBride, Grad. S.P.S., Fellow W. C. Tennant, B.A. Sc., Fellow W. E. Wagner, B.A. Sc., Fellow	256	310
Surveying Geodesy and astronomy Spherical trigonometry Least squares Descriptive geometry	L. B. Stewart, D. T. S., Professor A. T. Laing, B.A.Sc., Demonstrator E. V. Neelands, B.A. Sc., Fellow	235	286
Electricity Magnetism Dynamo-electrical machinery Mechanics of machinery Rigid dynamics	T. R. Rosebrugh, M.A., Professor H. W. Price, B.A. Sc., Demonstrator M. V. Sauer, B.A. Sc., Fellow	178	230

SUBJECTS TAUGHT BY THE FACULTY OF THE UNIVERSITY OF TORONTO.

Subjects.	Instructors.	Number of Students. 2nd Term. Session 1901-1902.	Number of Students. 1st Term. Session 1902-1903.
Algebra, Euclid, Plane trigonometry, Analytical geometry, Calculus, Astronomy	Alfred Baker, M.A., Professor. A. T. DeLury, B.A., Associate Prof E. F. Burton, B.A., Fellow	213	246
Sound, Light, heat, electricity and magnetism, Hydrostatics, Biology	James Loudon, M.A., L.L.D., Professor. W. J. Loudon, B.A., Associate Professor. C. A. Chant, B.A., Lecturer J. C. McLennan, B.A., Ph.D., Assoc Prof. G. R. Anderson, M.A., Lecture Assistant. R. Ramsay Wright, M.A., B.Sc., Prof	215	246

GENERAL REMARKS.

Drawing.

It has been found necessary to provide fifty new drafting tables during the year and to utilize, in addition to the space occupied last year, one of the lecture rooms as a drafting room. This has made it necessary to utilize part of the Museum as a lecture room and to remove, in consequence, a portion of the collection to the basement. The drafting rooms are much over-crowded and will so continue until the Chemical Laboratories and Museum be removed to the new building.

Analytical and Applied Chemistry.

Want of space in this department is more and more severely felt each year. It has become impossible to properly handle the classes with the facilities at the disposal of the staff. Every place in the Quantitative Laboratory is occupied and the room set apart as a preparation room for the lecturers has been given up to students. There will not be room enough to accommodate the students next year in the laboratory space now at the disposal of the department.

Mineralogy and Mining.

All the space available for Mineralogy and Mining in the present building is already utilized; no important changes can be made; since new quarters are to be provided it has not been considered advisable to recommend any alterations in the part of the building at present occupied by this department.

Electrical Laborato y

The induction motor mentioned in last year's report is in use, also a revolving field to replace at pleasure the rotor of the same thus constituting an induction generator at minimum expense. Additional measuring instruments for alternating and direct current work have been purchased. The available laboratory space is very much over-crowded.

Steam Engine and Hydraulic Laboratories.

The following equipment has been added to the steam engine and hydraulic laboratory during the year: A gauge tester for high pressure gauges, a variable speed transmission for carrying on tests of centrifugal pumps, etc., and a number of kinematic models for illustrating lectures.

The most urgent requirements at present are an air-compressor for experimental purposes and a steam turbine.

Tests of Metals.

A room fitted up with vice benches, forges and a small crucible furnace for the purpose of training students in making easy and short tests of metals and alloys ought to be provided as soon as possible.

Surveying, Practical Astronomy, etc.

Owing to the increased attendance at the school it is necessary to add to the equipment of surveying instruments several transits and levels, together with the accompanying tapes, pickets, levelling rods, etc., in order to avoid the duplication of instruction in the field. Such duplication is especially undesirable as the best use should be made of the limited number of days upon which the weather permits of such work. These additions to the equipment will necessitate the construction of cases for holding them. Since the date of the last report a zenith telescope has been ordered and its arrival is expected daily. In addition to this a portable astronomical transit instrument should be provided to complete the equipment for the instruction of students in Geodetic Astronomy. In order that the instruction in this work may be carried on to the best advantage a small observatory should be erected so that the instruments may be kept in position as long as required. The cover to the transit pier built recently is of too temporary a nature to allow of this being done with safety. Some additional apparatus is also necessary for testing the lengths of measuring tapes and standards.

Chemistry and Mining Building.

Since the date of the last report the Chemistry and Mining Building has been begun and will be completed it is to be hoped in time to be used for the work of the next session. In order that this may be accomplished the Milling Building should be begun as soon next spring as the weather will permit, as it will take some time to instal the equipment. This will necessitate the removal of old Wycliffe College.

J. GALBRAITH, Principal.

Toronto, December, 1902.

APPENDIX N.—*SUPERANNUATED TEACHERS.*

(Continued from Report of 1901)

* 1. Allowances granted during 1902.

Register No.	Name.	Age.	Post office.	Years of service.	Allowance.
					$ c.
1092	Barber, Albert	60	Cobourg	28	196 00
1093	Shanks, Robert P	63	Hope Bay	32	210 00
1094	Cundal, John	54	Cameron	29½	204 00
1095	Froats, Luther S	52	Morrisburg	31½	218 00
1096	Treadgold, Carey	60	Berkeley	17	102 00
1097	Moyer, Freeman H	54	St. Catharines	32	222 00
1098	Vanderburgh, Harvey	48	Brantford	23½	161 50
1099	McFaul, Leonard L	64	Seaforth	30½	213 50
1100	McEwen, Robert	60	Grantley	35	210 00
1101	Patterson, Alex	54	St. Catharines	24½	171 50
1102	Bradley, Jno. H	60	Freeman	37½	258 50
1103	Hewson, Alfred John	58	Innisfail, Alta, N.W. T	23½	164 50
1104	Campbell, Alexander	66	Kincardine	41	286 00
1105	Johnson, Geo. W	63	Toronto	31	217 00
1106	†Wark, Alexander	66	Sarnia	43½	302 00
1107	†Rose, John Geo	65	Wallaceburg	20	140 00
1108	†Brackin, James	56	Chatham	31½	212 50
1109	†Woods, Frank	55	Port Hope	33½	233 00
1110	†Ryerson, Jesse	66	Orillia	4½	31 50
1111	†McWhorter, Robt	68	Petrolea	12½	87 50

2. Summary for Years 1882-1902.

Year.	Number of teachers on list.	Expenditure for the year.	Gross contributions to the fund.	Amount refunded to teachers.
		$ c.	$ c.	$ c.
1882	422	51,000 00	13,501 08	3,660 10
1887	454	58 295 33	1,489 00	3,815 80
1892	456	63,750 00	1,313 50	786 86
1897	424	62,800 33	847 00	620 27
1901	414	64,250 66	1,565 00	572 00
1902	407	64,244.92	1,073 50	722.78

Six teachers' subscriptions were withdrawn from the fund during 1902.

* As the sum of $4 is deducted from each Superannuated Teacher's allowance, as subscription to the fund, the payments were $4 less in each case than given above.

† Allowance commences with 1903.

APPENDIX O.—*LIST OF CERTIFICATES ISSUED BY THE EDUCATION DEPARTMENT, 1902, ETC.*

1. Inspectors, 1902.

Anderson, Frank Cecil, B.A.
Coombes, Joseph E.
Crewson, Joseph William, B.A.
Dales, John Nelson, B.A.
Davidson, John H., B.A.
Dowsley, William Clinton, M.A.
Grant, Christina Cameron, B.A.
Marshall, John Wells, B.A.
Nesbit, David Ashton, B.A.
White, Edwin Theodore, B.A.
Will, George Edwin, B.A.

2. High School Principals and Specialists, 1902.

Anglin, Robert W., M.A. (Mathematics).
Clarke, Frederick Hall, B.A. (French and German).
Dandy, William P., B.A. (Commercial).
Dolan, John Henry, B.A. (Classics).
Edwards, Clarence Bartlette, B.A. (English and History).
Graham, Peter Edwin, B.A. (French and German).
Gundy, Henry Wentworth, B.A.
Huff, Samuel, B.A. (Science).
Kennedy, Thomas, B.A.
McDougall, Duncan, B.A. (Classics).
McDougall, Neil, B.A. (Science).
McKinley, James Matthew, B.A. (Classics).
McLennan, Alexander Livingstone, B.A.
Markle, Jacob Hiram, B.A. (English and History).
Marshall, John Wells, B.A.
Mathews, Stanley Wade, M.A. (Mathematics).
Moore, James R., M.A. (Science).
Morgan, Joseph, B.A.
Race, Cecil Ethelbert, B.A. (Commercial).
Saunders, William Robert, B.A.
Scovell, Holland R, B.A.
Taylor, John Gladstone, B.A. (Mathematics).
Taylor, Julian J. W., B.A. (Classics).
Thompson, Peter McK., M.A. (Science).
White, Edwin Theodore B.A. (Mathematics).
Will, George Edwin, B.A. (Classics).
Wilson, W. Ashbury, B.A.

3. High School Assistants and Specialists, 1902.

Armour, Amy Annette, (French and German).
Brown, Duncan.
Burnham, Archibald Mowbray, B.A. (Moderns and History).
Carter, Eslie, B.A.
Davidson, Jean.
Dunkley, Albert Wesley, M.A. (Classics).
Fife, Mary Hannah A., B.A.
Flath, Emma Soloma, B.A.
Forbes, William Brownie (Science).
French, Bruce, B.A.
Gould, Ethel Wanita, B.A.
Hills, Minnie, B.A. (Mathematics).
Johnston, George Lang (Commercial).
Lehmann, C.A.K., B.A. (Science).
McArthur, Edith Mary.
Malcolm, Wyatt.
Millar, Frederick Gourlay, B.A.
Moir, Mary A. (Commercial).
Moore, Elizabeth Greenwood, B.A. (Moderns and History).
Rogers, William Henry, B.A. (Mathematics).
Saunders, William Robert, B.A.
Sifton, Joseph Wright, B.A. (Mathematics).
Thomas, Janie, B.A. (English and History).
Watterworth, Grace McC., B.A. (Commercial).
Wren, John Stewart, B.A. (Mathematics).

4. Summary of Public School Teachers' Certificates, 1902.

—	Male.	Female.	Total
First class certificates	38	45	83
Second class certificates	122	495	617
Third class, per County Model School reports	317	821	1,138
Plantagenet Bi-lingual Model School	8	20	28

5.—First Class Certificates, 1902.

Adams, Edith May.
Allan, Nellie Fraser.
Babe, Minnie.
Bailey, Gertrude M.
Barnes, Charles Lancelot, B.A.
Bentley, Percy David.
Bloomfield. George.
Botsford, Annie May.
Bradshaw, Myra.
Brill, Minnie L.
Brock, Mrs. Jean Scott.
Broughton, Annie.
Brown, Harry Wilson.
Burrow, Ethel M.
Calvin, William Newman.
Colquhoun, Thomas Alvin.
Calvin, J. Herbert.
Clow, Charles Norman.
Coombs, Joseph E.
Corkill, Edward J,
Cornish, George A., B.A.
Davis, Elsie M.

5.—First Class Certificates, 1902.—*Continued.*

Delmage, Edith Rachel, B.A.
Dickson, Edith Kate.
Dobbie, Jemena Grace.
Ellis, George E., B.A.
Evans, Charles Robert.
Fairchild, Austin H., B.A.
Fraser, Margaret Susanna.
Gahan, Louise.
*Grant, Christina Cameron, B.A.
Goulding, Hannah Mitchell.
Hamilton, John C., B.A.
Hannah, William D.
Hedley, William Powell, B.A.
Hogg, Agnes J.
Holbrook, J. Howard
Hopkings, Walter E.
Hudson, Helen Gertrude.
Hunnisett, James Edward.
James, George Moffatt, B.A.
Jolly, William J.
Keen, Maude A.
Kidd, Truman W.
Kirkwood, Elizabeth M.
Laidlaw, Lizzie Merle.
*Loucks, James E., B.A.
Lucas, Bessie.
MacLennan, Katherine.
Mackenzie, Eva Florine.
McEachern, Effie.
McGregor, John Ormond, M.A.
McLachlan, Isabella Paris.
McNeely, Priscillia, V.M.
McPhail, Euphemia Jane.
Martyn, Harold G., B.A.
Medley, Margaret B.
*Mooney, William Thomas, B.A.
Moore, Irene.
Morell, Alfred.
Morrison. Martha E.
Mott, Hawley Sanford.
Peacock. C. Edith.
Procunier, Estella.
Rabb, Vida Bernice.
Reid, Neil Duncan, B.A.
Richardson, Frederick T.
Richardson, William Leeds.
Ricker, Harry E.
Robb, Minnie
Robertson, Florence A.
Rowntree, Annie E.
Schooley, Frederick T.
*Staples, Lucy Lillian, B.A.
Stockdale, Thomas N.
Thompson, Walter W.
Thompson, William Henry, B.A.
Tomkins, Elizabeth Augusta.
Trench, Wycliffe, B.A.
Tuer, Margaret.
Wilson, Ethel M.
Wing, Henry.
Wood. Jessie I.

* Honors.

6. Second Class Certificates, 1902.

(1) *London Normal School, June, 1902.*

Augustine, Bessie.
Bannantyne, John D.
Bartlett, Pamelia Louisa.
Betz, Edna M.
Bottoms, Emma M.
Bradley, Lilly.
Brison, David G.
Button, May.
Campbell, Agnes B.
Campbell, Jennie.
Campbell, Mary C.
Capling, Mabel.
Carr, Rachel.
Crysler, Oscar L.
Clark, Maud.
Clemens, Rathsay E.
Clugston, Maggie.
Cradock, Lizzie
Dadson, Thomas.
Dale, Annie.
Dalton, Lucy
Daly, Margaret
Dennis, Alberta.
Devereux, Margaret.
Dewar, Nellie R.
Dodd, Anna.
Dodson, Frederick J.
Dorrance, Lizzie M.
Dowswell, Ambrose.
Dredge, Frederick G.

(1) *London Normal School, June, 1902.—Con.*

Elliott, Hughena D.
Fairlie, Howard W.
Foster, Arthur.
Fowler, Tillie R.
Fraser, Margaret M.
Geiger, William.
Gordon, Margaret A.
Greene, Jane.
Hall, Annie L.
Hamilton, Robert J.
Harding, Lydia.
Harris, Kate.
Heywood, Grace.
Hodgins, Laura R.
Hodgins, May.
Howlett, Christine.
Ironside, Edwin G.
Irvine, Bernice.
Jackson, Mollie McK.
James, Jennie S.
Jordan, Marie.
Kelly, A. Walter.
Kilgour, Jean E.
Kirby, Ethel.
Kirk, Rachel
Lane, Millie E.
Langford, Eldon E.
Lyle, Annie,
Marritt, Mabel E.
Murray, Georgina.
MacCallum, Tina.
MacEachern, Neil C.
McAllister, Arthur.
McCarthy, Rose E.
McColl, Jessie F.
McGregor, Amarantha.
McGregor, Katie A.
McGugan, Annie.
McGugan, Reginald C.
McIntosh, Bessie.
McKay, Marion.
McKellar, Annie E.
McKelvey, Annie E.
McKenzie, Mabel C.
McLean, Russell M.
McMillan, Sarah S.
McMurchy, Lily.
McTavish, Bessie.
Nixon, Edna.
O'Neil, Della I.
Parkinson, John T.
Patterson, Addie.
Payne, Lewis.
Pearson, Mary.
Pedlow, Minnie M.
* † Penney, Lizzie K.
Priddle, George.
Robinson, Flavilla J.
Robinson, Frederick E.
Rogers, E. Jennie.
Roney, Peter.
Sawers, Edith.
Scott, Margaret E.
Shannon, Laura A.
Showler, Louise Adelia.
Stuart, Lily M.
Sumpton, Joseph C.
Sutherland, Margaret.
Taylor, Grace.
Tucker, Mary C.
Tully, Agnes C.
Walker, Olive M.
Warren, Agnes.
Watson, Jennie A.
Watts, Ida.
West, Sara M.
Young, James Alfred.

* Honors. † Medallist.

(2) *Ottawa Normal School, June, 1902.*

*Alford, Ethel.
Ambrose, Minnie Madeline.
Bain, Howard.
Bale, Alice Winnifred.
Bayne, Isabella.
Beatty, Mabel Gertrude.
Beauchamp, Florence.
Bow, William Brighton.
Campbell, Mary Josephine.
Canning, Etta Maude.
Cauley, Vina Catharine.
Christmas, Ida.
Clancy, Grace Alice.
Cole, Grace Frances.
Cone, Eleanor.
Courtice, Hattie Beatrice.
Cranley, John Kennedy.
Davey, Frederick.

(2) *Ottawa Normal School—Concluded.*

Davis, Elizabeth.
Doris, Aggie.
Doyle, Annie Mary.
Dunning, Lucy.
Eberle, Gertrude.
Eby, Enoch.
Fairbairn, Clarissa H.
Gillespie, John Alexander.
Gilroy, Helen McGee.
Grant, Maud Alice.
*Gray, Fannie.
Hall, Ethel May.
Hambleton, Herbert Oscar
Hare, Mrs. Marian Edith.
*Hartwick, Luella.
Hendricks, Ethel Maude.
Husband, Florence Mabel.
Kemp, Daniel.
Kendall, Mary Louise.
King, Flossie.
Kinlock, Helen.
Lemon, Ada.
Lewis, Sarah Ethel.
Macdonnell, Susie.
Mallory, Harriet.
*Mills, Frances.
Moffatt, Lily.
Moore, Herman Henry.
MacKay, Annie Sara.
McConnell, William Henry.
†*McFadgen, John Alexander.
McKenna, Annie Ralph.
McKenna, Mary.
McKessock, George Dobie.
McKillop, Kate Lang.
McLennan, Joseph.
McRoberts, Arthur.
Noonan, Jane Emily.
Ostrander, Manly.
Oulton, Mabel.
*O'Hara, Kate May.
Payne, Mary Elizabeth.
Pritchard, Carrie.
*Purtelle, Robert James.
Quarry, Mae Gertrude.
Quinn, Augustine.
Randall, Edith.
Richards, Ethel.
Ricker, Nettie Alberta.
Rierdon, Beatrice.
Rutherford, Annie Mabel.
Scott, Robert John.
Shepherd, Blanche Josephine.
Shepherd, Grace Dutton.
Slattery, Kathleen Evelyn.
*Smith, Aleda Mabel.
Soul, Rhoda.
Spence, Isabella.
Stafford, Elizabeth Eugeine.
Stallwood, Margaret.
Steacy, Victoria Elizabeth.
Stewart, John A.
Stinson, Mary Elizabeth.
Swain, Margaret.
*Taggert, Ada.
Taylor, Rachel Irene.
Ward, Elmer.
Way, Stella.
Whiteside, Fannie.
Yemen, Peter.
Young, Mary Matilda.

* Honors. † Medallist.

(3) *Toronto Normal School, June, 1902.*

Ackney Estella Louise.
*Allen, Millie.
Appelbe, Ethel.
*Barber, Edna Amelia H.
Beatty, Ethel Lawson.
Begg, George Albert.
Bellman, Susie May.
Brady, Jennie.
*Bristol, Grace.
Broad, Hattie.
Brown, Laura Minnie.
Burford, Grace Emiline.
Burling, Nettie Maude.
*Burnett, Jessie.
Burroughs, Florence.
Bywater, Maude Marguerite.
Callaghan, Millie M.
Cameron, Martha Louise.
Camp, Maggie.
Campbell, Mamie Constance.
Caton, Lydia.
Chinnick, Addie Lois.
*Clark, Ethyl Rose.
Cleland, Maggie.

(3) *Toronto Normal School—Continued.*

Coghlin, Maud.
Coulter, Reba.
Crozier, Marion Alma.
Curtis, Libbie.
Davidson, Ella Frances.
Diamond, Minnie.
Earle, Emma.
Edwards, Lillian Blanche.
Eilbeck, Winona Maude.
Esplen, Kate McTaggart.
Evans, Hattie.
†*Fielding, Edna Juainta.
*Forgie, Eliza Agnes.
*Fotheringham, Susie Lane.
Fraser, Maggie.
Gam·by, Lillian Gertrude
Green, Jeanie A.
Griffith, Hattie Amelia.
Hart, Mabel Louise.
Healey, Marguerite.
Henderson, Ellen Mary.
*Holmes, Minnie Rachel.
Houston, Tena.
Howson, Annie Ethel.
*Jackson, Jennie Anne.
Jeffries, Nellie Maude.
Jewell, Sybil L.
*Jicking, Annie Maude.
Johnson, Herbert Edgar.
Johnstone, Esther.
Kelley, Amelia.
Kelley, Ida May.
Kennedy, Martha Jeanette.
Kennedy, Una Loretto.
*Kirkwood, Ethel Winnifred.
*Lamon, Thomas Andrew.
Ley, Emily Anne.
Lumley, Bertha Helen.
MacFarlane, Nellie Sarah.
MacKay, William James.
MacNamara, Rose Louise.
Madill, Lottie Luella.
*Marshall, Henrietta.
Moore, Thomas Edward.
Morin, Mae Leo.
Morris, Lillian.
Murray, Annie.
McAlister, Ethel.
McArthur, Mary.
McDonald, John George.
*McDonald, Mary Myrtle.
McGaughey, Anna Mabel.
*McGill, Arthur Benjamin.
McKay, Bessie
McKay, Margaret.
McLeod, Christina.
*Nasmith, Jessie.
Nash, Mary.
Nichol, Florence M.
Norris, Myrtie May.
Norton, Mina Harriet Frances.
O'Reilly, Mary.
Paddell, May.
Patterson, Lueva.
Pattullo, Clara.
*Paxton, Florence Edith.
Phillips, Estella May.
Porter, Bell.
Prickett, Lilian.
Richardson, Fannie.
Richardson, Jennie L.
Robinson, Lulu Edith.
Robson, Theresa Catharine.
Rodwell, Mary Alice.
Russell, Florence M.
Scanlon, Alice Patricia.
Sheppard, Annie Slevin.
Sheppard, Ellie Lane.
Sibley, John Cynddylan.
* Simpson, Belle.
* Simpson, Margaret Estelle.
Smith, Grace.
Spence, Bella Laura.
Stancombe, Laura Louise.
Stedman, Lily Elizabeth.
Stephenson, Annie Lindsay.
Stewart, Allie May.
Stewart, Nellie Burdette.
Still, Elmer Bertrand.
Telford, Ethel May.
Thomas, Olive Maud.
Todd, Meta May.
Watson, Lillian.
Weaver, Henrietta M.
Webster, Mary Louise.
* Weir, Laura.
Weir, Mabel.
White, Nellie Alberta.
Wilcox, Bertha.
Wilson, Dorothy May.
Woodrow, Annie Bell.
Worden, Marquis Dufferin.

*Honors. †Medallist.

(3) *Toronto Normal School—Concluded.*

Drohan, Richard P.
Macorquodale, Jessie.

(4) *London Normal School, December, 1902.*

Alexander, Maude B.
Archer, Edith Louise.
Bauslaugh, Lloyd P.
Bean, Clara A.
Bergey, Amelia.
Bower, Effie.
Bower, Harry T.
Branion, Herbert C.
Brown, Emma.
Buchanan, George.
Burger, Ethel.
Cameron, Allan.
Campbell, Agnes.
Cathcart, Nettie M.
Cayley, Thomas M.
Coughlin, Maude M.
Coutts, Annie.
Cronin, Johanna M.
Day, Asa W.
Dennis, Ethel M.
Dickson, A. Orr.
Doupe, Josephine.
Dow, Isabella C.
Fletcher, Louisa C.
Flint, Clarence K.
Freek, Florence Edna.
Gilchrist, Annie M.
Gordon, Mary E.
Graham, Gertrude.
Grant, Alexander C.
Halladay, Alice M.
Hammond, Ira.
Harrower, Maude.
Henderson, Robert.
Hindle, Thomas.
Hollway, Annie.
Johns, Addison F.
Johnson, Maude.
Kenney, Louisa.
Kirk, Hugh.
Langford, Albert.
Lawson, Margaret.
Lee, Jean A.
Lush, Jane.
Maylard, Philip F.
Merrill, Eunice A.
Moorehead, Annie B.
Murray, May.
MacLean, Victoria.
McCarten, Ransom H.
McCleary, Harry H. A.
McCoig, J. Laura.
McCoig, Lena C.
McCordie, Lottie S.
McDonald, James.
McEachern, Sara A.
McGarvah, Jessie Elizabeth.
McKenzie, Cassie.
McMillan, Jessie Edith.
McTaggart, James A.
Nicholas, Alice C.
Nichols, Florence.
O'Leary, Alice.
O'Reilly, Rosalie.
Patterson, James C.
Phillips, Harriet.
Phillips, Sadie.
Powe, Tena Cecelia.
* Pyke, Alfred J.
Ramsay, George A.
Reynolds, Florence.
Richardson, Gertrude.
Robertson, Will F.
Ruddick, Margaret.
Ruthven, Alice.
Scott, Thomas.
Shannon, Annie M.
Shantz, Edith.
Shaw, Roswell J.
Snell, Jessie E.
Stanley, Edith.
Trask, John A.
Trewartha, Nelson W.
Weir, Robert.
* † Westcott, Maude.
Wooding, Aggie.

(5) *Ottawa Normal School, December, 1902.*

Allan, William Fred.
Allen, Emily.
Anderson, Clara.
Begley, Annie.

* Honors.
† Medallist.

(5) Ottawa Normal School.—Concluded.

Black, Lettie.
Bothwell, Edith.
Bourke, Mary.
Bradley, Agnes Adelia.
Brown, Samuel.
Cameron, Catherine Lenore.
Carpenter, Florence W.
Carruthers, Mrs. Elizabeth.
Christie, Lydia Reynolds.
Cleland, Bessie D.
Connolly, Mary.
Cooke, Bertha.
Coot, Libbie.
Cram, Mary Florence.
Crowley, Carmel.
Deloughery, Nellie.
Doran, Julia.
Earl, Libbie Gertrude.
Ferguson, William Thomas.
Forham, Beatrice.
Grant, William Cameron.
Greer, Mabel Marguerite.
Halpenny, Nellie.
Hamilton, Catherine Louise.
Harty, Katie.
Holdaway, Nellie.
Holmes, Hattie, Amanda.
Howson, Lilian Maude.
Hunt, Kester Jane.
James, Maude.
Jones, Charles Wesley.
Jones, William.
Kearney, Mary Ellen.
Kelly, Mary Gertrude.
Keys, William Ralph.
Kirkland, Mabel Sarah.
Lewis, Bertha Isabel.
Lough, Helen Baptie.
Low, Mildred Amelia.
Lynett, Nellie Agnes.
MacDonald, Elizabeth.
Macklam, Addie Beatrice.
Millar, Ella Mabel.
Morrow, Wilfred D.
Myers, Hattie.
McDonald, Elizabeth Bertha.
McConnell, Nettie.
McDonald, Ethelwin.
McGoey, Genevieve.
McGuire, Mrs. Elizabeth Mary.
McNeel, Estella.
McPhail, William James.
O'Brien, Maurice.
O'Grady, George Leo.
Pierce, Margaret Eleanor.
Pinkerton, Walter Ernest.
Runions, James Everard.
* † Sanderson, Henry Stanley.
Sanderson, Robert Franklin.
Sauder, Minnie May.
Scott, Anna.
Scott, George E.
Sinclair, Jennie Adam.
Smith, Orval Stanford.
Stevens, Louisiana May.
Sullivan, Eva.
Summerby, Frederika.
Taulty, Teresa.
Taylor, Hugh.
Thorn, Jennie Alice.
Thrasher, Albert Edwin.
Van Dusen, Stanley.
Waldron, Mary.
Walters, Florence.
Waterman, Louise.
Weir, Hope.
Weir, William James.
Weymss, Ida Gordon.
Wilkie, Ada A.

(6) Toronto Normal School, December, 1902.

Ackerman, Ada Asenath.
Ackney, Bertha Almeda.
*Addy, Ethel.
Ault, Birdie.
*Baker, Fredk. E.
Barfoot, Pansy Madeline.
Barrett, Wilhelmine E.
Bates, Christine.
Batt, Margaret Emma.
Bayne, Thos. R.
*Beare, Zuleika.
Bell, Annie.
Bennett, Minnie.
Bowen, Annie Alberta.
Boyd, Edith.
Brain, Mildred.
Brazill, Patricia Marie.
Brownlee, Alexina.

* Honors. † Medallist.

(6) Toronto Normal School.—Concluded.

Bulmer, Effie.
Cavanagh, Minnie Agnes.
Chapman, Margaret M.
Clark, Martha.
*Clarkson, Berta.
Cotton, Samuel George.
Couch, Emily.
Davis, Elena Esther.
Davis, Emily.
Delorme, Alfred.
Downard, Susanna.
Dudley, Edith Leta.
Evans, Eva.
*Faircloth, Louise Fletcher.
Farrant, Minnie.
Ferris, Nellie Campbell.
Fry, Annie Rosetta.
Galoska, Edith Mary.
*Hagerman, Edna Beatrice.
Hall, Jessie Christina.
Halfpenny, Ira Joseph.
Hambly, Emma Maude.
Hardcastle, Thomas.
Heck, Helen.
† *Hill, Cassie May.
Howell, Hattie Blanche.
Hunter, E. Myra.
Huxtable, Nellie E.
Jerome, Herman.
Johnson, Duncan.
Jones, Olive Gwendoline.
Kerns, Myrtle Edna.
Ketcheson, Rose.
Lang, Violet.
Leith, Clara Maud.
Lownsbrough, Maud.
Macklin, Olive B.
May, Florence Louise.
* Miller, May Christina.
Morrow, Jessie Helena
MacFarlane, Edna Louise.
MacIntyre. Jessie Christina.
MacKay, Jennie Cameron.
MacMurchy, Beatrice Esther.
MacMurchy, Christina.
* MacNabb, T. Katherine.
McColl, Isabella.
* McGregor, Mabel Edna.
* McKinnon, John Alexander.
McLeod, Sara.
McMorris, Margaret.
McQueen, Margaret.
McRae, Mary.
Neely, Margarete, Henrietta.
Nighswander, Hetty.
Oldham, Margaret Ann.
Pelton, Nettie.
Phelan, Teresa.
* Potter, Delle.
Prest, Gertrude Mewburn.
Price, Lizzie Alice.
Reed, Evelyn.
* Robb, Grace.
Robinson, Louise.
Robson, Annie Louisa.
Rogers, Mary Bertha.
Rogers, Fred'k Coe.
Rose, Helen Marion.
Ross, Jessie Barbara.
Rowe, Margaret Elvira.
Rowe, Leila Cordelia.
Roxburgh, Belle Pattieson.
Scafe, Sylvia.
Scott, Mabel Mary.
* Selby, Lillie May.
Shand, Agnes Smith.
Sharpe, Jessie.
Sibbett, E. Gertie.
* Sitzer, Edna.
* Smith, Maggie.
Smyth, Marion Milne.
Spence, Nina Erminia.
Stanberry, Florella M.
Stephenson, Jennie Gordon.
Switzer, Minnie Myra.
Thorburn, Annie Christine.
* Toll, Wilhelmina Naomi.
* Torrance, John McDonald.
Trench, Jennie.
Trick, Edgar Garfield.
Tuck, Clara Louise.
Tuer, Mary Jessie.
Tuffy, Katherine E.
Turner, Madge Elizabeth.
Weight, Hattie May.
Weir, James.
White, Loretto.
Wiltse, Cora Clare.
Wingfield, Eva.
Winnett, Estelle.
Wyatt, Emma.
Yokom, Laura Ada.
Young, Bertha Georgie.

* Honors. † Medallist.

7. Kindergarten Directors, 1902.

Acheson, Annie.
Bain, Agnes W.
* Bapty, Gertrude.
Bryan, Christine.
Bull, Alice.
* Burritt, Gwendoline.
Cavers, Agnes G.
Cole, Clara M.
Convey, Bertha.
Currie, Katherine.
Darnbrough, Bessie.
Doble, Florence.
Fawcett, Marie.
Forsyth, Lillian H.
Freeman, Elsie.
Grant, Annie.
Grant, Isabel.
Groff, Emilie.
Howell, Ethel.
Keith, Margaret.
Kumpf, Mary.
Lanskail, Agnes.
Lennox, Eva.
Macorquodale, Maude.
MacPeak, Bessie.
McClean, Edith.
McTaggart, Helen.
Marcon, Laura.
Nash, Isabel.
Neish, Laura.
Patterson, Louise.
Perry Adeline.
Ritchie, Edith.
Robertson, Maude.
Ross, Winnifred.
Rush, Lillian.
Scott, Margaret.
Stewart, Lottie.
Stoddart, Jennie.
Webber, Mabel.
Westman, Alice.

8. Kindergarten Assistants, 1902.

Anderson, Mary.
Angus, Maud M.
*Allison, May.
Betzner, Wahnetta N.
Chapman, H. Lorena.
*Cornell, Mabel G.
Delaporte, Ethel W.
Farquharson, Vida.
*Harris, Isabel Ellen.
Hopkirk, Mary H.
Morrison, Rose.
McIlwain, Mabel.
*Patterson, Frances E.
Platt, Florence Ethel.
*Robb, Alma A.
Rogers, Edith L.
Rogers, Helen M.
*Thompson, Marion W.
Walker, Florence M.
*White, Mary A.
Whiteside, Sadie.
*Wilson, Jennie H.
*Wrenshall, Mabel.
*Ziegler, Edna J.

9. Domestic Science, 1902.

Akes, V. Maude.
Burke, Lilian M.
Bustin, Hannah.
Christie, Roberta M.
Copland, Mabel C.
Duncan, Bertha A.
Fanquier, M. Maude.
Foote, May.
Fraser, Agnes Gertrude.
Fuller, A. L.
Gowsell, Hattie M.
Gray, Carolina Martha.
Gray, Gertrude A.
Gray, L.
Gunn, Mary.
Holland, Helen.
Kennedy, Martha.
Kingsmill, G.
Macbeth, Meta.
MacPherson, Mary C.
McCully, Violet.
McLenaghan, Hattie E.
McPhedran, Miss.
Malone, Charlotte.

* Honors.

9. Domestic Science.—*Concluded.*

Mitchell, Grace.
Morris, S. A.
Morrison, Anne.
Noble, Dora.
Patterson, Olive.
Scott, Mable A.
Spafford, Jessie.
Sutherland, Alexander C.
Sutherland, Gladys.
Thomson, L. B.
Welsh, Jessie Blake.
Worster, Carrie.

10. Temporary and Extended Certificates, 1902.

County, etc.	Temporary certificates.	Third Class certificates extended.	County, etc.	Temporary certificates	Third Class certificates extended.
Bruce	9	2	Middlesex	1	.....
Carleton	9	.....	Prescott and Russell	2	7
Dundas	.....	1	Prince Edward	.....	9
Essex	9	2	Renfrew	33	5
Frontenac	35	2	Simcoe	2	2
Glengarry	9	.....	Stormont	6	.....
Grey	.....	2	Victoria	.....	3
Haldimand	1	2	Western Ontario, R.C.S. Schools	4	1
Hastings	9	.....	Central " " "	.....	1
Huron	.....	1	Eastern " " "	13	2
Kent	1	.....	Districts	157	4
Lambton	2	1			
Lanark	3	7	Totals, 1902	307	58
Leeds	2	1	" 1901	136	48
Lennox and Addington	.....	2			
Lincoln	.....	1	Increase	171	10

11. Professional Examinations, 1902.

	Kindergarten Assistants.	Kindergarten Directors.	Co. Model Schools.	Normal Schools.	Normal College.
No. of candidates	28	48	1,171	619	151
No. who passed	24	41	1,138	617	128
No. of appeals	4	5	.....	.....	8
Appeals sustained	2	2	.....	.....	2

APPENDIX P.

MEMBERS OF THE EDUCATIONAL COUNCIL, AND BOARDS OF EXAMINERS; LISTS OF ASSOCIATE EXAMINERS, AND HIGH SCHOOL PRINCIPALS AND ASSISTANTS.

1. Members of the Educational Council 1902-1903.

Under the provisions of section 6, cap. 291, R. S. O., 1897, the following gentlemen were appointed members of the Educational Council:

G. H. Armstrong M.A., B. Paed, Principal of Borden Street Public School, Toronto.

The Rev. N. Burwash, M.A., LL.D., Chancellor of Victoria University.
Alfred Baker, M.A., of Toronto University.
The Rev. William Clark, M.A., D.C.L., F.R.S.C., of Trinity University, Toronto.
The Rev. J. H. Farmer, B.A.,LL.D., of McMaster University, Toronto.
Cortez Fessenden, M.A, Principal of Collegiate Institute, Peterborough.
Maurice Hutton, M.A., Principal of University College, Toronto.
A. P. Knight, M.A., M.D., of Queen's University, Kingston.
James Loudon, M.A., LL.D., President of the University of Toronto.
A. B. MacCallum, B.A.,Ph.D., of Toronto University.
The Rev. J. R. Teefy, M.A., LL.D., Principal of St. Michael's College, Toronto.
W. Tytler, B.A., Public School Inspector, Guelph.

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2. Boards of Examiners, 1902.

(1) Public School Leaving or Part I. Junior Leaving Board.

W. H. Ballard, M.A., I.P.S., Hamilton.
W. S. Milner, M.A., Toronto University.

(2) High School Leaving and University Matriculation Board.

J. H. Cameron, M.A., Toronto University.
A. Carruthers, M.A., Toronto University.
Pelham Edgar, Ph.D., Victoria University, Toronto.
J. Fletcher, LL.D., Toronto University.
W. L. Goodwin, D.Sc., Queen's University, Kingston.
A. L. Langford, M.A., Victoria University, Toronto.
F. W. Merchant, M.A., Principal Normal School, London.
J. Macgillivray, Ph.D., Queen's University, Kingston.
M. A. Mackenzie, M.A., Trinity University, Toronto.
W. S. W. McLay, B.A., McMaster University, Toronto.
M. O'Brien, Separate School Inspector, Peterboro'.
A. T. DeLury, M.A., Toronto University
R. Ramsay Wright, B.Sc., Toronto University.
G. M. Wrong, M.A., Toronto University.
A. H. Young, M.A., Trinity University, Toronto.

(3) Commercial Diploma Board.

J. H. Packham, B.A., Owen Sound.
E. C. Srigley, Woodstock.

(4) Commercial Specialist Board.

J. D. Conklin, Ottawa.
W. Ward, Kingston.

(5) Kindergarten Board.

Miss E. Cody, Normal School, Toronto.
Miss L. M. Currie, Toronto.
S. A. Morgan, D.Pæd., Hamilton.
Miss Jessie Stocks, Normal School, Ottawa.

(6) Normal School Board.

G. E. Broderick, Prin., Model School, Lindsay.
R. H. Cowley, M.A., I.P.S., Ottawa.
W. E. Groves, Toronto.
D. A. Maxwell, M.A., LL.B., Ph. D., I.P.S., Windsor.
L. E. Staples, M.A., Kingston.
J. R. Stuart, I.P.S., Stratford.
J. Suddaby, Prin., Model School, Berlin.

(7) Examiners in Practical Teaching at the Normal Schools.

W. Atkin, I.P.S. ..... St. Thomas.
N. W. Campbell, I.P.S ..... Durham.
W. J. Carson, I.P.S ..... London.
J. Connolly, I.P.S ..... Brockville.
A. B. Davidson, B.A., I.P.S ..... Newmarket.
J. S. Deacon, I.P.S ..... Milton.
W. Irwin, B.A., I.P.S ..... Stratford.
W. Johnston, M.A., I.P.S ..... Athens.
J. H. Knight, I.P.S ..... Lindsay.
J. McBrien, I.P.S ..... Prince Albert.
Rev. Thos. McKee, I.P.S ..... Barrie,
W. J. Summerby, I.P.S ..... Russell.
J. J. Tilley, I.C.M.S ..... Toronto.

(8) Normal College Board.

G. H. Reed, B.A., B. Pæd ..... Markham.
S. Silcox, B.A., B. Pæd ..... St. Thomas.
A. W. Burt, B.A ..... Brantford.
E. Coombs, B.A., B. Pæd ..... Newmarket.
J. H. Brethour, B.A ..... Mt. Forest.
C. J. Logan, M.A ..... Galt.
J. Jeffries, B.A ..... Peterborough.
A. E. Jewett, B.A ..... Chatham.
A. Stevenson, B.A ..... Stratford.
J. A. Houston, M.A ..... Smith's Falls.
R. A. Gray, B.A ..... Toronto.
W. C. Ferguson, B.A ..... London.
H. McKellar, B. A ..... Owen Sound.
E. L. Hill, B A ..... Guelph.

(9) County Model School Board.

A McMillan ..... Toronto.
E. D. Parlow, M.A ..... Ottawa.
W. Scott, B.A., Prin. Normal School ..... Toronto.

(10) Art School Board.

W. D. Blatchley ..... Toronto.
F. H. Brigden ..... Toronto.
A. C. Casselman ..... Toronto.
R. Gagen ..... Toronto.
Rev. Bro. Maxentius ..... Toronto.
M. Matthews ..... Bracondale.
T. R. Roseburgh ..... Toronto.
W. A. Sherwood ..... Toronto

(10) Art School Board.—*Concluded.*

F. M. Bell-Smith ..... Toronto.
L. B. Stewart ..... Toronto.
C. H. C. Wright ..... Toronto.

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3. Associate Examiners, 1902.

(a) Junior Leaving Part 1. or Public School Leaving.

Arithmetic.

Andrus, G ..... London.
Caverhill, A. E ..... St. Catharines.
Higginson, Maria A ..... Hawkesbury.
Keogh, L. R ..... Pembroke.
McIntosh, M ..... Toronto.
Millar, J ..... Toronto.
Nugent, J ..... Cornwall.
Rice, J ..... Aurora.
Wilson, W ..... Toronto Junction.

English Grammar.

Attwood, A. E ..... Ottawa.
Bridgman, Clara ..... Smithville.
Burchill, J., B.A ..... Cobourg.
Cameron, J. H ..... Brussels
Charlesworth, J. W ..... Guelph.
Dowkes, W. J ..... Welland.
Grant, Rev. Geo., B.A ..... Orillia.
Hinde, E. W., B.A ..... Toronto.
Langford, T. E., B.A ..... Tottenham.
Leary, J. L ..... Toronto.
McArthur, Christina ..... Pt. Perry.
McDougall, J. B., B.A ..... North Bay.
McIntosh, A ..... Toronto.
Odell, A ..... Cobourg.
Phillips, S., B.A ..... Minden.
Rose, C ..... Ottawa.
Shaw, J ..... Blyth.
Spence, J ..... Toronto.
Suddaby, J ..... Berlin.
Talbot, H. J ..... Beamsville.
Ward, E ..... Collingwood.
Waugh, J., D. Pæd ..... Whitby.
White, R. O ..... Gore Bay.
Young, D ..... Guelph.

History.

Allingham, T. D.....West Lorne.
Brown, J. C.....Peterboro.
Bulmer, J. R.....Toronto.
Burgess, H. H., B. A.....Owen Sound.
Crewson, J. W., B. A.....Cornwall.
Campbell, J.....Forest.
Davidson, Jean.....Renfrew.
Day, I., B.A.....Orillia.
Eagle, D. M.....Windsor.
Evans, W. A.....Lakefield.
Giles, Edith.....Brockville.
Harvey, W. B.....Sydenham.
Kinney, R., M.D.....Brockville.
Lavan, Adelaide F.....Welland.
Markle, J. H., B.A.....Toronto.
McEwan, J. S.....Ottawa.
McLellan, Kate.....Goderich.
Miller, G. A.....Dresden.
Panton, Jessie.....Oshawa.
Platt, G. D., B;A.....Picton.
Pottinger, Sylvia.....Sarnia.
Rundle, J. A.....Mountain View.
Sorsoleil, M.A.....Peterboro.
Staples, L. E., M.A.....Kingston.

Geography.

Campbell, J. D.....Highgate.
Currie, A. M.....Parry Sound.
Evans, J. J.....Toronto.
Hamilton, W. J.....Owen Sound
Kidd, W. J.....Woodbridge
Manning, A. E.....Hamilton.
Milne, J. W.....Toronto.
McRae, Jessie.....Belleville.
Moir, M. Annie.....Barrie.
Prendergast, W., B.A.....Toronto.
Robertson, G. D.....Dunnville
Taylor, L. W.....Lindsay.
Ward, W.....Kingston.
Wright, Robt.....Hagersville.

English Composition.

Aitcheson, Belle.....Waterdown.
Barr, Lydia.....Uxbridge.
Brown, J. W.....Hanover.
Bryce, Walter, B.A.....Toronto.
Chapman, W. F.....Toronto.
Craig, J. J., B.A.....Fergus.
Currie, D.....Petrolea.
Davidson, Margaret.....Hamilton

English Composition.—Concluded.

Edwards, C. H., M. A.	Napanee.
Forhan, J. H.	Newmarket.
Graham, R. M.	London.
Moir, K. E.	Port Hope.
Moshier, D. D., B. A.	Sarnia.
Spence, W. D.	St. Mary's.
White, J. F.	Toronto.

(*b*) *Junior Leaving Part II. and Pass Matriculation.*

English Grammar.

Bishop, C. P., B. A.	Athens.
Cleary, Nora, B.A.	Windsor.
Hardy, E. A., B. A.	Lindsay.
Howard, E. S., B.A.	Owen Sound.
Keillor, J., B.A.	Ridgetown.
Kirkwood, Florence, B. A.	Seaforth.
McKay, D., B. A.	Alexandria.
McManus, Emily, M. A.	Niagara Falls South.
Page, R. B., M.A.	Toronto Junction.
Reynar, Marianne S., B. A.	Picton.

English Literature.

Dingle, Grace, B.A	Meaford.
Foik, H. J	Kingston.
McCool, J., M. A.	London.
McKim, W. A., B.A.	Perth.
Macdonald, Jean E., B.A	Toronto.
Morrow, J. D., B. A.	Glencoe.
Miller, Margaret, B.A.	Pembroke.
Pattee, Mrs. Ada	Trenton.
Skinner, Kate, B.A.	Guelph.
Steele, A., B.A.	Orangeville.
Thompson, Margaret J., B.A.	Almonte.
Walks, R. H., B.A.	Whitby.

English Composition.

McLean, W. J., B A	Vankleek Hill.
McVicar, A., B.A.	Windsor.
Mowat, A., B.A.	Brockville.
Roberts, T. H., B.A	Rat Portage.
Ross, R., B.A.	Pembroke.
Tennant, Adelaide, B.A	Forest.

History.

Carstairs, J. S., B.A. ..... Toronto.
Dandy, W. P., B.A. ..... Morrisburg.
Deroche, Eleanor E., B.A. ..... Napanee.
Findlay, W. F. ..... Toronto.
Foster, Jessie, ... Welland.
Hinch, N. C., B.A. ..... Barrie.
Johnston, G. L., B.A. ..... Hamilton.
McMurchy, R. D., B.A. ..... Chesley.
Shepley, L. ..... Collingwood.
Stothers, R. S. ..... Ottawa,
Thompson, J. F., B.A. ..... Simcoe.
Wilson, N. L., B.A. ..... Port Elgin.

Arithmetic.

Bell, Ethel, ... Toronto.
Brown, P. W. ..... Newburgh.
Knight, W. W. ..... Belleville.
Morgan, J. J., B.A. ..... Omemee.
Nichol, W. W., B.A. ..... Listowel.
Norris, I. T. ..... Ottawa.
O'Connor, W., B. A. ..... Toronto.
Powell, E. G., B.A. ..... St. Catharines.
Simpson, R. S. ..... St. Thomas.
Stanley, T. E. A., B.A. ..... Iroquois.

Euclid.

Boyes, R. ..... Campbellford.
Colling, G. F., B. A. ..... Seaforth.
Forbes, J. W., B.A. ..... Weston.
Frost, F. H., B.A. ..... Bowmanville.
Hay, A. ..... Barrie.
Merritt, R. N., B.A. ..... Markham.
Myer, A. N., B.A. ..... Beamsville.
Overholt, A. M., B.A. ..... Hamilton.
Rudlen, G. W., B.A. ..... Arnprior.

Algebra.

Carmichael, N. R., M.A. ..... Kingston.
Doidge, T. C., B.A. ..... Orillia.
McPhail, A. C., B.A. ..... Almonte.
Whyte, R., B.A. ..... Deseronto.
Wooster, Thyrsa, B.A. ..... Toronto.

Classics.

Baines, A. W., B.A. ..... Wiarton.
Caesar, L., B.A. ..... Port Hope.
Farquharson, R. A., B.A. ..... Richmond Hill.
Fitzgerald, Eliza. B.A. ..... Cornwall.
Jackson, W. S., B.A. ..... Deer Park.

Classics.—Concluded.

Jones, G. M., B.A. ..... Hagersville.
Luton, J. T., B.A. ..... Belleville.
Reid, E. J., B.A. ..... Woodstock.
Riddell, F. P., B.A. ..... London.
Robinson P. J., B.A. ..... Toronto.
Sawers, F. J., B.A. ..... Port Hope.
Stoddart, R., B.A. ..... Listowel.
Tasker, L. H., M.A. ..... Almonte.
Will, G. E., B.A. ..... Orangeville.
Wright, Landon, B.A. ..... Toronto.

French and German.

Allin, Elizabeth, B. A. ..... Glencoe.
Annis, Mary, B.A. ..... Markham.
Armour, Amy, A. ..... Almonte.
Brown, H. W., B.A. ..... Peterboro.
Carter, Janet, M.A. ..... Galt.
Clayton, Adelaide, B.A. ..... St. Mary's.
Fleming, E. Catharine ..... Niagara Falls.
Gardiner, Ella, B.A. ..... Belleville.
Hendrick, A. W., B.A. ..... Picton.
Jones, Laura, B.A. ..... Cobourg.
MacLean, Allan ..... Cornwall.
Pilkey, P. J., B.A. ..... Ft. William.
Tapscott, H. B., B.A. ..... Toronto.
Weir, Annie, B.A. ..... Port Hope.

Physics.

Anderson, G. R., B.A. ..... Toronto.
Birchard, F. J., B.A. ..... Toronto.
Carefoot, G. A. ..... Collingwood.
Carr, W. R., B.A. ..... Toronto.
Campbell, D. A. ..... Ottawa.
Donaldson, W., B.A. ..... Petrolea.
Grant, B. D. ..... Goderich.
Kirkland, W. S., M.A. ..... Morrisburg.
McCutcheon, F. W., B.A. ..... London,
Reid, M. R., M.A. ..... Napanee.
Stuart, F. A., B.A. ..... Lucan.
Taylor, J. A., B.A. ..... Dutton.
Thomson, R. B., B.A. ..... Prescott.
Thompson, P. M., B.A. ..... Whitby.

Chemistry.

Morgan, J., B.A. ..... Smith's Falls.
Rogers, G. F., B.A. ..... Seaforth.
Smellie, W. K. T., B.A. ..... Deseronto.
Wilson, T. M., B.A. ..... Vankleek Hill.
Young, W. D., B.A. ..... Toronto.

(c) *Senior Leaving and Honor Matriculation.*

English.

Charles Henrietta, B.A. ..... Toronto Junction.
Field, J. M., B.A. ..... Goderich.
Lawler, Gertrude, B.A. ..... Toronto.
Mowbray, W., B.A. ..... Chatham.

History.

Brown, L., M.A. ..... Aylmer.
Gundy, H. W., B.A. ..... Toronto.

Mathematics.

Dawson, H. J., B.A. ..... Kingston.
Griffin, A. D., B.A. ..... Woodstock.
Murray, T., B.A. ..... Owen Sound.
Rand, W. E., B.A. ..... Clinton.

Classics.

Bragg, T. G., B. A. ..... Bowmanville.
Colling, J. K., B.A. ..... Collingwood.
Croskery, R. A., B.A. ..... Morrisburg.
Jolliffe, R. O., B.A. ..... Owen Sound.
Stubbs, S. J., B.A. ..... Smith's Falls.

French and German.

Albarus, Hedwig S., B.A. ..... Morrisburg.
Bunnell, Effie, B.A. ..... Brantford.
Horning, L. E., Ph. D. ..... Toronto.
Van Every, J. F., B.A. ..... Napanee.

Science.

Kilmer, E. E. ..... Toronto.
Piersol, W. H., B.A. ..... Toronto.
Scott, F. H., Ph. D. ..... Toronto.

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.

Collegiate Institutes.	Names of teachers.	Degree.	Specialists.	Date of appointment.	Salary.
Aylmer	Rutherford, Walter W	B.A., Tor	Math	1883	1,400
	Phelps, Frances G	B.A., Tor	Eng., Hist., Fr., Gr	1896	700
	Brown, Lyman	M.A., Tor	Class	1899	800
	Kilmer, Ernest E. C.		Commercial (Interim) Sci	1899	850
Barrie	Redditt, Thomas H	B.A., Tor	Eng., Hist., Fr., Gr	1893	1,500
	Hay, Andrew		Math	1882	1,000
	Minns, James Edward	B.A., Vic	Math., Sci	1893	1,000
	Moir, Mary Annie		Commercial	1895	750
	Hinch, Nicholas E	B.A., Tor	Eng., Hist., Fr., Ger	1901	750
Brantford	Burt, Arthur William	B.A., Tor	Eng., Hist., Fr., Gr	1893	1,800
	Passmore, Samuel F	M.A., Tor	Class	1885	1,200
	Hoag, James P	B.A., Queen's	Eng., Hist., Math	1893	1,200
	Coates, Daniel Harsum	B.A., Tor	Math	1893	1,200
	Bunnell, Effie Maria	B.A., Tor	Eng., Hist., Fr., Ger	1891	1,200
	Hamilton, James Reid	B.A., Tor	Sci	1893	1,200
	Shultis, Adam		Commercial	1896	1,200
Brockville	Mowat, Alexander	B.A., Tor	Eng., Hist. (Interim)	1901	1,500
	Copland, James Stuart	B.A., Tor.; M.A., McMaster	Sci	1889	1,000
	Bryan, Hugh Wallace	M.A., Queen's	Class	1901	1,000
	Husband, Almeron Judson	B.A., Tor	Fr., Ger	1895	1,000
	Forbes, John W	B.A., Tor	Math	1902	1,000
	Giles, A. Edith			1890	700
	Richardson, Kate		Commercial	1898	700
Chatham	Paterson, David Smith	B.A., Tor	Eng., Hist., Fr., Ger	1888	1,500
	Twohey, William J	M.A., Tor	Class	1885	1,200
	Taylor, Wilson	B.A., Tor	Math	1894	1,200
	Jewett, Albert E	B.A., Queen's	Sci	1896	1,200
	Lane, James S	B.A., Tor	Fr., Ger	1898	1,050
	Collins, Henry (Interim)		Commercial	1902	900
	Sissons, Charles B. (Interim)	B.A., Tor	Class	1902	750
Clinton	Houston, John	M.A., Tor	Eng., Hist., Fr., Ger	1892	1,225
	McLean, Ebenezer M		Sci	1894	900
	Parlee, Edith		Commercial	1898	600
	Stoddart, Robert	B.A., Tor	Class	1902	800
	Tier, William	M.A., Tor	Math	1902	800

Cobourg	Mitchell, George Winter	M.A., Queen's	Class	1890	1,425
	Arthur, Colin Clayton	M.A., Queen's	Sci	1893	900
	Odell, John William	B.A., Tor	Math	1895	1,000
	Jones, Laura L	B.A., Tor	Eng., Hist., Fr., Ger	1898	700
	Race, Cecil E	B.A., Tor	Commercial, Math	1900	1,000
Collingwood	Mills, George K	B.A., Tor	Sci	1901	1,200
	Hammill, George	B.A., Tor	Math	1892	1,000
	Colling, John Knowles	B.A., Tor	Class	1899	900
	Burnham, Archibald Mowbray	B.A., Tor	Eng., Hist., Fr., Ger	1901	700
	Stone, Alice B (Interim)		Commercial	1902	600
Galt	Carscadden, Thomas	M.A., Tor	Eng., Hist	1885	1,750
	Logan, Charles James	B.A., Trin	Class	1883	1,200
	DeGuerre, Ambrose	B.A., Tor	Math	1890	1,200
	Evans, William Edwin		Commercial	1892	1,000
	Hamilton, Robert S	B.A., Tor	Sci	1894	1,100
	Carter, Janet W	M.A., Tor	Eng., Hist (Interim), Fr., Ger	1901	900
Goderich	Strang, Hugh Innis	B.A., Tor	Class	1871	1,300
	Field, John M	B.A., Tor	Eng., Hist., Fr., Ger	1900	1,000
	Merritt, Robert N (Interim)	B.A., Tor	Math	1902	850
	Thompson, William H (Interim)	B.A., Tor	Sci	1901	850
	Parlee, Edith		Commercial	1902	700
	Fleming, Louis Charles (Interim)			1902	600
Guelph	Davison, James	B.A., Vic	Math	1892	1,500
	Hill, Ethelbert Lincoln	B.A., Tor	Sci	1889	1,000
	Skinner, Kate Clara	B.A., Tor	Eng., Hist., Fr., Ger	1895	800
	Wilson, Henry Ernest	B.A., Tor	Class	1895	1,000
	Charlesworth, John William			1888	850
	Taylor, Luther William		Commercial	1902	1,000
Hamilton	Thompson, Robert Allan	B.A., Tor	Math	1886	1,800
	Turner, John Burgess	B.A., Queen's	Math., Sci	1885	1,400
	Paterson, Andrew	M.A., Trin		1874	1,200
	Crawford, John Thomas	B.A., Tor	Math	1889	1,200
	Logan, William McGregor	M.A., Tor	Class	1892	1,200
	Hogarth, Eber Septimus	B.A., Tor	Eng., Hist., Fr., Ger	1892	1,200
	MacPherson, Frederick Fotheringham	B.A., Tor	Eng., Hist., Fr., Ger	1894	1,200
	Gill, James	B.A., B. Paed., Tor	Math	1892	1,100
	Morgan, Sydney Albert	B.A., D. Paed., Tor	Class	1891	1,100
	Davidson, Margaret Cheyne			1876	800
	Asman, Henry Oldrid Evison	B.A., London, Eng		1892	1,000
	Overholt, Arthur Milton (Interim)	M.A., McMaster	Math	1901	900
	Johnston, George Lang	B.A., Queen's	Commercial	1888	800
	Morgan, Harriet Emma			1897	550
	McArthur, Edith Mary			1901	550
Ingersoll	Briden, William	B.A., Queen's	Class, Eng., Hist	1886	1,200

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.—*Continued.*

Collegiate Institutes.	Names of teachers.	Degree.	Specialists.	Date of appointment	Salary.
Ingersoll.—*Con.*	McDonald, George Leslie	B.A., Tor	Eng., Hist., Fr., Ger	1895	1,000
	Cameron, John Shaw		Math	1898	900
	Norman, Lambert	B.A., Tor	Eng., Hist., Fr., Ger	1897	800
	Sexton, James Henry	M.A., Queen's	Sci	1902	900
Kingston	Ellis, William Stewart	B.A., Vic	Math., Sci	1893	1,800
	Sliter, Ernest Oscar	M.A., Tor	Class	1888	1,200
	Dales, John Nelson	M.A., Tor	Eng., Hist, Fr, Ger	1889	1,200
	Lingwood, Frederick H	M.A., Trin	Class	1894	850
	Sills, William Ryerson	M.A., Queen's	Math	1897	1,150
	Ward, William		Commercial	1898	950
	Duff, James	M.A., Queen's	Eng., Hist	1899	1,000
	Staples, Lorne Edgar (Interim)	M.A., Queen's	Sci	1902	860
	Beaton, Kate Florence	M.A., Queen's		1902	600
	Campbell, Alexander	B.A., Tor	Math	1903	750
Lindsay	Harstone, John C	B.A., Tor	Math	1886	1,600
	Cornish, G. A (Interim)	B.A., Tor	Sci	1903	1,000
	Hardy, Edwin A	B.A., Tor	Eng., Hist., Fr., Ger	1889	1,150
	Addison, Margaret Eleanor T	B.A., Vic	Eng., Hist., Fr., Gr	1901	1,000
	Colling, James	B.A., Tor	Class	1894	1,150
	Carefoot, George A		Sci	1902	800
London	Radcliffe, Samuel John	B.A., Tor	Eng., Hist., Fr, Ger	1891	1,800
	Little, Robert A	B.A., Tor	Class	1886	1,400
	Ferguson, William Chalmers	B.A., Tor	Eng., Hist., Fr., Ger	1892	1,300
	McCool, John	M.A., Tor	Eng., Hist., Fr., Ger	1897	1,175
	McCready, Samuel B	B.A., Tor	Sci	1898	1,175
	Govenlock, William M	B.A., Tor	Math	1898	1,150
	Wilson, Nicholas			1866	1,050
	Andrus, Guy A			1888	1,100
	McVicar, Archibald	B.A., Tor	Eng., Hist., Fr., Ger	1903	1,100
	Riddell, Frank P	B.A., Tor	Class	1898	1,050
	Jones, Samuel S			1892	1,000
	Horton, Charles W	B.A., Queen's	Eng., Hist	1895	1,025
	Dickenson, James Arthur		Commercial	1895	1,050
	McCutcheon, Frederick Wm. Caswell	B.A., Tor	Math., Eng., Hist	1900	1,050
	Voaden, Arthur		Commercial	1898	1,000
	Downing, John Henry			1900	975
	Hanson, Fannie M			1886	800
	Kelso, Alice C			1897	800

Morrisburg	Jamieson, James Smyth	M. A., Vic	Eng., Hist	1882	1,200
	Massey, Arthur Wallace	B. A., Vic	Eng., Hist., Math	1892	850
	Kirkland, William Stuart	M. A., Queen's	Sci	1898	800
	Albarus, Hedwig Selma	B. A., Tor	Fr., Ger	1899	800
	Croskery, Robert Arthur	B. A., Queen's	Class	1899	750
	Buchanan, John Alexander			1902	600
Napanee	Flach, Ulyses J	M. A., Tor	Math	1900	1,400
	Reid, Marvin Ryckman	M. A., Queen's	Sci	1900	900
	VanEvery, John Fair	B. A., Tor	Eng., Hist., Fr., Ger	1897	900
	Nicol, Margaret A			1891	600
	Smith, Margaret			1892	600
	Deroche, Eleanor Elizabeth (Interim)	B. A., Tor	Class	1901	700
Niagara Falls	Dickson, James D	B. A., Tor	Math	1893	1,300
	Walker, David McKenzie		Commercial	1893	1,000
	Fleming, Ethel Catharine	B. A., Tor	Eng., Hist., Fr., Ger	1900	950
	Will, George Edwin	B. A., Tor	Class	1901	900
	Dobbie, Mary I			1900	500
Orillia	Dickson, John Elder	B. A., Tor	Class., Eng., Hist	1899	1,500
	Doidge, Thomas Clarke	B. A., Tor	Math., Commercial	1899	1,000
	Langrill, Adelaide Jane	B. A., Tor	Eng., Hist., Fr., Ger	1899	700
	Johnston, Fred. James	M. A., Tor	Sci	1901	800
	Scovell, Holland R	B. A., Tor	Eng., Hist, Fr., Ger (Interim)	1900	700
	Elliott, Robert Leopold (Interim)			1901	600
Ottawa	Macmillan, John	B. A., Tor	Eng., Hist	1881	2,400
	Jolliffe, Orion John	M. A., Vic	Class	1884	1,700
	McDougall, Alexander Hiram	B. A., Tor	Math	1889	1,700
	Alexander, Luther Herbert	M. A., Tor	Eng., Hist., Fr., Ger	1894	1,600
	Sykes, Wm. John	B. A., Vic	Eng., Hist., Fr., Ger	1894	1,600
	Stothers, Robert	B. A., Queen's		1887	1,200
	Norris, Isaac Taylor	B. A., Queen's	Math	1898	1,100
	Campbell, Daniel Alexander	B. A., Tor	Sci	1896	1,300
	Graham, Wm. Andrew	B. A., Tor		1895	1,050
	Scott, Bessie Mabel			1892	850
	Macmillan, Herbert Seymour	B. A., Tor	Fr., Ger	1897	950
	Armstrong, Wm. Gilnochie	M. A., Tor	Eng., Hist., Fr., Ger (Interim)	1901	750
	Simpson, Robert S		Commercial	1902	900
	Tomkins, Elizabeth Augusta (Interim)			1902	700
Owen Sound	Murray, Thomas	B.A., Tor	Math	1897	1,500
	Packham, James Henry	B. A., Vic	Math., Commercial	1884	1,150
	Whyte, David	B. A., Tor	Sci	1902	1,000
	McKellar, Herbert S	B. A., Tor	Fr., Ger	1898	1,100
	Brough, Thomas Allardyce	B. A., Queen's	Eng., Hist	1893	1,100
	Jolliffe, Richard Orlando	B. A., Tor	Class	1899	1,100
	Hamilton, Wm. John (Interim)		Sci	1901	800

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.—*Continued.*

Collegiate Institutes.	Names of Teachers.	Degree.	Specialists.	Date of Appointment.	Salary.
Owen Sound.—*Con.*	Howard, Edwy S	B. A., Vic	Eng., Hist	1902	1,100
	Shields, Alfred J			1903	700
Perth	Hardie, William	B. A., Tor	Class	1892	1,200
	Edmiston, James Alfred			1893	850
	Preston Thomas	B. A., Tor	Sci	1903	900
	McKim, William Andrew	B. A., Tor	Eng., Hist., Fr., Ger	1900	850
	Doxsee, William Morley	B. A., Vic	Math	1899	950
Peterborough	Fessenden, Cortez	M. A., Trin	Math	1890	2,000
	Fife, Jas. A	B. A., Tor	Math, Sci	1887	1,200
	Jeffries, John	B. A., Tor	Eng., Hist., Fr., Ger	1890	1,200
	Kenner, Henry R. H	B. A., Tor	Class	1893	1,200
	McPherson, Angus William	B. A., Tor		1899	900
	Srigley, Edgar Cooper		Commercial	1902	950
	Sorsoleil, Milton A			1902	700
Renfrew	McDowell, Charles	B. A., Queen's	Math	1879	1,100
	Dolan, George R. (Interim)	B. A., Queen's	Class., Eng., Hist	1901	750
	Ewing, William Campbell	M. A., Queen's	Sci	1896	775
	Hamilton, John C. (Interim)	B. A., Queen's		1902	900
	Lucas, Edwin A. (Interim)	B. A., Tor		1902	650
	Bennett, Alice Maud (Interim)	B. A., Tor		1902	550
Ridgetown	Little, John George	B. A., Tor	Math	1889	1,300
	Reid, Robert	B. A., Tor	Eng., Hist., Fr., Ger	1895	850
	Marshall, John Wells	B. A., Queen's	Class (Interim)	1899	775
	Keillor, James	B. A., Queen's	Eng., Hist., (Interim)	1892	700
	Liebner, Ernest Oscar	B. A., Queen's and Tor	Sci	1901	850
St. Catharines	Henderson, John	M. A., Tor	Class., Eng., Hist	1872	1,600
	Robertson, William John	B. A., Tor., L L. B., Vic	Math	1874	1,200
	Giffin, James A	B. A., L L. B., Toronto	Sci	1892	1,100
	Cloney, Sara Louisa	M. A., Queen's	Eng., Hist., Fr., Ger	1896	900
	Laing, Arthur Stewart		Commercial	1898	900
	Stevenson, William John			1894	700
	Caverhill, Arthur E			1892	750
St. Mary's	Martin, Stephen	B. A., Tor	Math	1886	1,250
	Follick, Thomas Henry	M. A., Vic	Sci	1885	925

	Clayton, Adelaide Helena R.	B. A., Tor	Eng., Hist., Fr., Ger	1892	875
	Glassey, David Alex	B. A., Tor	Class	1894	925
	Delmage, Emeline E. (In'erim)	B. A., McMaster	Math	1903	500
St. Thomas	Quance, Noah	B. A., Tor	Class	1891	1,500
	Stevenson, Orlando John	M. A., Tor	Eng., Hist., Fr., Ger	1897	1,200
	Marty, Aletta Elise	M. A., Queen's	Fr., Ger	1894	1,200
	Lees, Richard	M. A., Queen's	Sci	1894	1,200
	Johnson, Robert Wilbur		Commercial (Interim)	1898	850
	McGee, Cyril Houghton	B. A., Trin	Math	1902	1,000
	Whitely, Lester Robert (Interim)	B. A., Tor	Eng., Hist., Fr., Ger	1901	650
	Jones, Louis E. (Interim)	B. A., Tor		1902	600
	Webster, Charles Samuel (Interim)	B. A., Tor		1902	600
Sarnia	Crassweller, Christopher L	B. A., Tor	Math	1902	1,400
	Grant, David M	B. A., Tor	Class	1886	1,300
	Corbett, Lewis C	B. A., Tor	Eng., Hist., Fr., Ger	1891	1,100
	Ivey, Thos. J	M. A., Tor	Sci	1902	900
	Fleming, Ethel May (Interim)	B. A., Tor	Eng., Hist., Fr., Ger	1902	800
	Bridgman, Clara Mary			1902	700
	Hatch, Salem B (Interim)			1902	600
Seaforth	Rogers, George F	B. A., Vic	Sci	1901	1,200
	Kirkwood, Florence Ethel (Interim)	B. A., Tor	Class	1901	850
	Brown, Harry William	B. A., Tor	Eng., Hist., Fr., Ger	1901	900
	Colling, George Featherston	B. A., Tor	Math	1901	800
	Johnstone, Lily M. (Interim)		Commercial	1902	700
Stratford	Mayberry, Charles Alexander	B. A., L L. B., Tor	Class	1890	1,550
	Robertson, Hugh S	B. A., Tor	Math	1900	1,100
	Lennox, Thomas H	B. A., Tor	Sci	1900	1,000
	Stevenson, Andrew	B. A., Tor	Eng., Hist	1901	1,000
	Malcolm, George	B. A., Queen's		1890	950
	Marty, Sophie E	M. A., Queen's	Eng., Hist., Fr., Ger	1899	1,000
	Robertson, George D	B. A., Queen's		1902	800
Strathroy	Wetherell, James Elgin	B. A., Tor	Class., Eng., Hist	1884	1,500
	Auld, Charles	B. A., Tor	Math	1900	1,000
	Cook, Margaret	M. A., Tor	Eng., Hist., Fr., Ger	1895	850
	Conn, Henry	B. A., Tor	Sci	1900	1,000
	Kent, Eleanor		Commercial	1899	750
Toronto (Harbord st.)	Spotton, Henry Byron	M. A., Tor	Class., Sci	1891	2,800
	Hagarty, Edward William	P. A., Tor	Class	1891	1,800
	Balmer, Eliza May	B. A., Tor	Eng., Hist., Fr., Ger	1891	1,800
	Lawler, Gertrude	M. A., Tor	Eng., Hist., Fr., Ger., Math	1891	1,800
	Smyth, Thomas Henry	M. A., Tor	Sci	1891	1,800
	Cox, John Loane	B. A., Tor	Math	1892	1,800
	Eldon, Robert Henry	B. A., Queen's	Math., Commercial	1891	1,800
	Forfar, Charles	B. A., Tor	Eng., Hist., Fr., Ger	1892	1,400

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.—*Continued.*

Collegiate Institutes.	Names of Teachers.	Degree.	Specialists.	Date of Appointment.	Salary.
Toronto (Harbord Street) *Continued*	Kennedy, Lyman Aaron	M. A., Vic		1892	1,400
	Strath, Robert Smith	B. A., Tor		1893	1,400
	Clark, Luther J	B. A., Queen's		1896	1,300
	Carstairs, John Stewart	B. A., Tor	Eng., Hist	1899	1,250
Toronto (Jameson Ave.)	Embree, Luther Edmund	M.A., Tor	Class., Eng., Hist., Fr., Gr	1888	2,800
	Smith, Gilbert Acheson	B.A., Tor	Sci	1889	1,800
	Hillock, Julia S	B.A., Tor	Fr., Ger	1900	1,500
	Birchard, Isaac J	M.A., Tor	Math	1893	1,800
	Crawford, Henry J	B.A., Tor	Class	1894	1,800
	Millar, James			1888	1,800
	Spence, Nellie	B.A., Tor	Class., Eng., Hist	1889	1,600
	Sinclair, John	B.A., Tor		1898	1,300
	Wismer, John A	M.A., Trin	Commercial	1889	1,800
Toronto (Jarvis St.)	Manley, Frederick Fitzpayne	M.A., Tor	Math	1875	2,800
	Chase, George A	M.A., Tor	Eng., Hist., Fr., Ger	1889	1,800
	Gray, Robert Alexander	B.A., Tor	Math	1900	1,500
	Shaw, George Edmund	B.A., Tor	Eng., Hist., Fr., Ger	1876	1,800
	Grant, Wilbur		Math	1881	1,800
	Michell, William C	B.A., Tor	Class.	1897	1,500
	Gundy, Henry Wentworth	B.A., Tor	Class. (Interim)	1900	1,200
	Lehmann, Carl	B.A., Tor	Science	1898	1,500
	Thomas, Janie	B.A., Tor	Eng., Hist	1882	1,350
	O'Rourke, Mary (Interim)	B.A., Tor	Math	1900	1,000
Toronto Junction	Colbeck, Franklin Charles	B.A., Vic	Class., Eng., Hist	1894	1,500
	Gourlay, Richard	B.A., Tor	Class, Math	1893	1,100
	Charles, Henrietta	B.A., Tor	Eng, Hist., Fr., Ger	1900	1,100
	Fletcher, William Hugh	M.A., Queen's	Sci. (Interim) Commercial	1902	1,000
	Barnes, Charles Lancelot (Interim)	B.A., Tor	Class.	1902	650
Whitby	Hogarth, George Henry	B.A., Tor	Math	1899	1,150
	Thompson, Peter M	M.A., Queen's	Sci.	1900	800
	Black, Harvey H. (Interim)	M.A., Queen's	Class.	1900	750
	Walks, Robert Hilton	B.A., Tor	Eng., Hist. (Interim)	1900	800
	Umphrey, George Wallace. (Interim)	B.A., Tor., M.A., Harvard	Fr, Ger	1901	700
Windsor	Cody, William Stephen	B.A, Tor	Math	1893	1,600
	Gavin, Frederick P	B.A., Queen's	Sci	1892	1,200

	Bell, Frederick Henry	B.A., Tor	Eng., Hist., Fr., Ger	1893	1,000
	Messmore, Joseph Franklin	B.A., Tor	Class	1899	1,000
	Neilson, James		Commercial	1893	1,000
	Cleary, Norah (Interim)	B.A., Tor		1900	700
Woodstock	Levan, Isaac Master	B.A., Tor	Class., Eng., Hist., Fr., Ger	1898	1,500
	Griffin, Albert Dyke	B.A., Queen's	Math	1892	1,200
	Kerr, Charles Staple	B.A., Tor	Eng., Hist. (Interim) Class	1889	1,100
	Cole, James McLarty		Sci	1898	1,100
	Ashwell, Annie Eliza	B.A., Tor	Eng., Hist., Fr., Ger	1901	800
	Watson, Ervin Herbert Alf. (Interim)	B.A., Tor	Eng., Hist., Fr., Ger	1901	650
	Scratch, Linnie May		Commercial (Interim) Sci	1902	850
High Schools.					
Alexandria	MacKay, Donald	B.A., Tor	Class	1895	1,250
	Longmore, Howard Bruce	B.A., Queen's		1898	800
	Flath, Emma S			1903	700
Almonte	Treleaven, John Wesley	B.A., Tor	Class	1902	1,000
	McPhail, Alexander C	B.A., Queen's		1899	750
	Armour, Amy A		Fr., Ger	1893	750
	Thompson, Margaret Jane	B.A., Queen's	Fr., Ger. (Interim) Eng., Hist	1895	750
Arnprior	Morrow, Archibald Elston	B.A., Tor	Class	1898	1,100
	Rudlen, George William	B.A., Tor	Math	1898	750
	Mitchell, Jessie Ann	B.A., Tor		1902	600
Arthur	Snider, Egerton E	B.A., Vic	Math	1896	1,075
	Elmslie, Wallace (Interim)	B.A., Tor	Eng., Hist., Fr., Ger	1901	600
	Mooney, William H. Thomas (Interim)	B.A., Tor	Class	1902	550
Athens	Massey, Norman Levi	B.A., Vic	Math	1898	975
	Bishop, Charles Peter	B.A., Queen's		1895	750
	Dowsley, William Clinton	M.A., Queen's	Class., Hist., Eng	1899	750
	Graham, Louis Hartley (Interim)	M.A., Tor	Sci	1902	675
Aurora	Mulloy, Charles W	B.A., Tor	Class	1896	1,000
	Rice, John			1895	650
	McBride, Sara Mabel (Interim)			1902	525
Beamsville	Myer, Albert Nicholas	M.A., Trin	Math	1893	800
	Ball, Kathleen Hester		Fr., Ger. (Interim)	1892	550
Belleville	Milburn, Edward Fairfax	B.A., Trin		1893	1,200
	Knight, William W		Math	1892	900
	Clarke, Henry Jellyman		Sci	1892	900
	McRae, Jesse Carre			1889	625
	Luton, James T	M.A., Tor	Class	1898	900

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.—*Continued.*

High Schools.	Names of teachers.	Degree.	Specialists.	Date of Appointment	Salary.
Berlin	Forsyth, David	B.A., Tor	Math	1901	1,300
	Connor, James William	B.A., Tor	Class., Eng., Hist	1901	1,200
	Sheppard, Frederick William		Eng., Hist	1888	1,000
	Weidenhammer, William B	B.A., Tor	Eng., Hist, Fr., Ger	1901	900
	Jackman, David S.....(Interim.)	M.A., Tor	Sci	1902	900
Bowmanville	Gilfillan, James	B.A., Queen's	Sci	1880	1,200
	Frost, Francis Henry	B.A., Tor	Math	1896	900
	Bragg, Thomas George	B.A., Tor	Class., Fr., Ger	1897	900
	Allin, Elizabeth A	B.A., Tor	Fr., Ger	1902	700
Bradford	Foucar, Walter K	M.A., Tor	Fr., Ger., (Interim) Eng., Hist	1901	850
	Wright, William Jonathan...(Interim)	M.A., Tor	Class	1902	550
	Brunt, Robert Anthony.....(Interim)	B.A., Tor	Sci	1903	550
Brampton	Fenton, William J	B.A., Tor	Class	1894	1,200
	Galbraith, William John	B.A., Trin	Fr., Ger	1887	900
	Shields, Alexander M	B.A., Tor	Eng., Hist	1902	850
	Warren, James M	B.A., Tor	Math	1897	900
	Cosens, Absalom	B.A., Tor	Sci	1897	900
Brighton	Newman, George E.	B.A., Queen's	Fr., Ger., (Interim) Eng., Hist	1896	1,000
	Burke, Alexander			1894	750
Caledonia	Seaton, Edward T	B.A., Queen's	Math	1901	900
	Bannister, John A	B.A., Queen's		1903	600
	Barr, Janet	B.A., Queen's		1901	500
Campbellford	Hume, John P.	B.A., Queen's		1896	1,000
	Boyes, Robert		Math	1895	800
	Kingston, George A .....(Interim)	B.A., Tor		1901	600
	Wilson, Nathan Lamont ....(Interim)	B.A., Tor.	Class..	1902	600
Carleton Place	Rand, Wilfrid E	B.A., Tor.	Math	1902	1,000
	Asselstine, Robert W..... (Interim	B.A., Queen's		1901	650
	McDonald, Neil			1890	750
	Macdonald, John F.....(Interim)	M.A., Queen's	Class...	1901	800
Cayuga	Skeele, James Eton	B.A., Tor		1897	950
	French, Bruce	B.A., Tor		1899	600

	Lick, Addie ... (Interin)	B.A., Tor.	Math	1903	500
Colborne	Bellamy, Wesley	B.A., Vic.		1892	925
	Kemp, William (Interim)	M.A., Queen's	Eng., Hist. Fr Ger	1901	600
Cornwall	MacLean, Allan Edmund	B.A., Queen's	Fr., Ger.	1898	1,200
	Nugent, James			1884	950
	Fitzgerald, Eliza Sophia	M.A., Queen's	Class	1893	1,000
	Birchard, Alexander Fraser		Class (Interim)	1898	700
	Crewson, Joseph W	B.A., Vic.		1902	900
Deseronto	Smellie, William K. T.	B.A., Tor.	Sci	1896	1,150
	Whyte, Robert	B.A., Tor.		1896	800
	Newcombe, Abram C. (Interim)	B.A., McMaster	Class	1901	650
Dundas	Meiklejohn, Allan J.	B.A., Queen's	Eng, Hist	1901	1,100
	Wren, John Stuart	B.A., Tor.	Math	1901	800
	Panton, Agnes Wilkie			1892	550
Dunnville	Cooke, John A.	B.A., Queen's	Class	1896	900
	Smith, Thomas C			1903	750
	Hills, Minnie	B.A., Tor.	Math	1901	600
	Morrison, A. Selkirk (Interim)	B.A., Queen's	Eng., Hist	1902	600
Dutton	Taylor, John Andrew	B.A., Queen's	Sci	1898	900
	Simpson, Ernstein (Interim)	B.A., Tor.		1902	575
	Fergusson, George Arthur (Interim)	B.A., Tor.		1902	550
	Taylor, Emma Jean (Interim)	B.A., Tor.		1901	450
Elora	MacMurchy, Norman	B.A., Tor.	Sci	1895	1,000
	Armstrong, Frank (Interim)	B.A., Tor.	Math	1902	600
	Francis, Annie Buchan (Interim)	B.A., Tor.	Eng., Hist., Fr., Ger	1902	500
Essex	Anglin, Robert W.	M.A., Queen's	Math	1902	1,100
	Teskey, Edith A	M.A., Tor.	Class	1901	700
	Keith, Arthur W. (Interim)	B.A., Tor.	Sci	1902	700
	Grant, Christine C. (Interim)	B.A., Tor.	Eng., Hist., Fr., Ger	1902	500
Fergus	Freeman, John A	B.A., Tor.	Class	1903	950
	Campbell, Archibald L.			1894	800
	Macdonald, Jessie E. O (Interim)	B.A., Tor.		1901	475
Forest	McKinley, James Matthew	B.A., Tor.	Class	1901	850
	Taylor, John Gladstone	B.A., Tor.	Math	1902	650
	Martyn, Harold George (Interim)	B.A., Tor.	Eng., Hist., Fr., Ger	1902	600
Fort William	Pilkey, Peter Joseph	B.A., Queen's		1901	1,050
	Wood, Elmore Everton (Interim)	B.A., McMaster	Math	1902	800

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.—*Continued.*

High Schools.	Names of teachers.	Degree.	Specialists.	Date of Appointment.	Salary.
Gananoque	Graham, Robert George	B.A., Vic	Math	1894	1,100
	Irwin, Herbert William	B.A., Tor	Eng., Hist., Fr., Ger. (Interim)	1902	650
	Wilson, W. Ashbury	B.A., Queen's		1899	650
Georgetown	Coutts, Richard David	B.A., Tor	Class	1897	1,000
	Williams, Lorne Joseph			1902	700
	Watterworth, Grace M		Commercial	1900	600
Glencoe	Morrow, John Duncanson	B.A., Tor	Class	1898	850
	Hobbs, Thomas (Interim)	B.A., Tor	Math	1902	600
	Macalister, Ursilla (Interim)	M.A., Queen's	Eng., Hist., Fr., Ger	1902	450
Gravenhurst	Muldrew, William H.	B.A., Queen's; D. Pæd., Tor	Math., Sci	1894	1,000
	Downey, Helen Elizabeth... (Interim)	B.A., Tor	Eng., Hist, Fr., Ger	1900	500
Grimsby	Harrison, Charles W	M.A., Vic		1894	800
	Strang, Rose Innis			1901	500
Hagersville	Jones, George M	B.A., Tor	Eng., Hist., Fr., Gr	1900	900
	Kaiser, Jesse B			1891	750
	Wright, Robert			1896	650
Harriston	Maclean, Godwin V	M.A., Tor	Math	1901	1,000
	Nichols, Bessie Hosking	B.A., Tor	Eng., Hist., Fr., Gr	1900	525
	Corkill, Edward J	B.A., Queen's	Sci	1902	700
	Dobson, Percival Charles.....(Interim)	B.A., Tor	Class	1903	700
Hawkesbury	Clothier, James O	B.A., Queen's	Fr., Ger. (Interim)	1902	1,000
	Sine, Frederick L..... (Interim)			1902	600
	Higginson, Maria Adelaide			1897	550
Iroquois	Stanley, Thomas E. A	B.A., Tor.	Math	1897	1,000
	Anderson, William G... (Interim)	B.A., Tor	Class	1901	725
	Smeaton, William (Interim)	B.A., Tor.	Sci	1900	775
	Rose, Marion H		Fr., Ger.	1898	600
Kemptville	Dillane, William	B.A., Tor		1895	1,100
	Nelson, John	B.A., Queen's	Math	1896	800
	Moore, James R.	M.A., Queen's	Sci	1901	800
	Macdougall, Graham (Interim)	B.A., Tor	Class	1901	700
	Johnston, Robert H (Interim)	B.A., Tor	Class	1903	500

Kincardine	Perry, Samuel Walter	B. A., Vic.	Class	1890	1,200
	Norris, James	M.A., Queen's	Math	1894	900
	Bale, George Sidney (Interim)	B.A., Tor.	Eng., Hist., Fr., Gr.	1901	600
	Grainger, Horace A. (Interim)	B.A., Tor.	Sci.	1902	700
Leamington	Elliott, John	B.A., Queen's	Eng., Hist., Math.	1896	1,200
	Bonis, Harry	B.A., Tor.	Class	1899	775
	Robertson, Alexander Morton	M.A., Queen's	Math., Fr., Ger.	1900	775
	Knox, Robert Hunter	B.A., Tor.	Sci.	1902	700
Listowel	Phillips, William Alexander	B.A., Tor.	Eng., Hist., Fr., Ger	1892	1,025
	Nichol, William Wallace	B.A., Tor.	Math	1898	800
	Clark, Joseph Campbell	B.A., Tor.	Class	1902	700
Lucan	Stuart, Frederick Alfred	B.A., Tor.	Sci.	1896	1,050
	Carter, Eslie	B.A., Tor.		1900	625
	Hedley, James Walter (Interim)	B.A., Tor.	Math	1902	600
	Trenaman, Mabel Natalia (Interim)	B.A., Tor.	Eng., Hist., Fr., Ger	1902	450
Madoc	Watson, Alexander H	B.A., Tor.		1889	1,100
	Rogers, William Henry (Interim)	B.A., Tor.		1902	550
	Ward, Clara Anne (Interim)	B.A., Tor.	Eng., Hist., Fr., Ger.	1902	400
Markham	Reed, George Heury	B.A., B. Pæd., Tor.	Class	1890	1,000
	Davidson, John H. (Interim)	B.A., B. Pæd., Tor.	Math	1902	600
	Annis, Mary A.	B.A., Tor.	Fr., Gr., (Interim)	1895	550
	Millar, Nannie M. A		Eng., Hist	1894	500
	McKay, Donald Alexander (Interim)	B.A., Queen's	Sci.	1901	600
Meaford	Cornwell, John Leslie	B.A., Tor	Math	1900	1,100
	Huff, Samuel	B.A., Queen's	Sci.	1891	750
	Dundas, Arthur A.	B.A., Tor		1897	750
	Dingle, Grace Keam	B.A., Tor	Eng., Hist., Fr., Ger	1900	650
Mitchell	Elliott, William	B.A., Tor	Math	1882	1,050
	Lewis, Lafayette Levi (Interim)	B.A., Queen's	Eng., Hist., Fr., Ger	1902	800
	Stephens, Robert H (Interim)			1902	650
Mount Forest	Brethour, John Henry	B.A., Vic	Class	1891	1,150
	Pearson, Alexander	B.A., Tor	Sci. (Interim)	1895	800
	Keith, George Walter	B.A., Tor.	Math	1900	750
	Clapp, Florence Hamilton			1899	375
Newburgh	Nesbit, David Ashton	B.A., Queen's	Eng. Hist. (Interim)	1893	1,000
	Denyes, James Malcolm	B.A., Queen's	Fr., Ger. (Interim)	1898	625
	Gordon, John G (Interim)			1903	500
Newcastle	Davidson, Hugh	B.A., Tor.		1888	850
	Grose, Caroline (Interim)			1901	400

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.—*Continued.*

High Schools.	Names of teachers.	Degree.	Specialists.	Date of appointment.	Salary.
Newmarket	Coombs, Albert Ernest	M.A., B. Paed., Tor	Class	1899	1,025
	Hollingshead, John Edwin			1884	725
	Smith, Arthur (Interim)	B.A., Tor	Sci	1902	625
Niagara	Barron, Robert Armour	B.A., Tor	Class., Eng., Hist., Fr., Ger	1900	800
	Blaine, Maude Elizabeth			1900	450
Niagara Falls South	Gibbard, Alexander H	B.A., Tor	Eng., Hist., Fr., Ger	1901	1,000
	Brown, Duncan A			1902	575
	Morrison, Amy M (Interim)	B.A., Tor		1901	500
North Bay	McDougall, James B (Interim)	B.A., Queen's		1902	1,000
	Breuls, Ira D	B.A., Queen's	Sci	1903	950
Norwood	Davidson, John	M.A., LL.B., Vic	Class	1882	1,100
	Graham, Peter Edwin	B.A., Queen's	Eng., Hist. (Interim) Fr., Ger	1899	650
	Closs, Frank David		Sci	1901	550
Oakville	Wellwood, Nesbitt John	B.A., Tor	Math	1877	1,050
	Hodgson, Joseph E (Interim)	B.A., Tor		1902	750
Omemee	Jardine, William Wilson	B.A., Tor		1898	800
	Harvey, William Blakely			1903	600
Orangeville	Steele, Alexander	B.A., Tor	Eng., Hist., Math	1879	1,400
	Clarke, Frederick Hall	B.A., Tor	Fr., Ger. (Interim) Eng. Hist	1895	850
	Dunkley, Albert Wesley	M.A., Queen's	Class	1900	750
	McDonald, Wilbert L (Interim)			1901	450
	Smith, Herbert Hamilton (Interim)	B.A., Tor	Sci	1901	700
Oshawa	Smith, Lyman C	B.A., Vic	Class., Eng., Hist	1882	1,300
	Slemon, Edward T	B.A., Vic	Math	1894	1,000
	Panton, Jessie R			1896	650
	Stevenson, Louis	B.A., B.Sc., Vic	Math., Sci	1902	800
	Mills, Martha Christine	B.A., Queen's	Fr., Ger	1902	600
Paris	Bell, Walter N	B.A., Tor	Class	1898	1,200
	Hedley, Robert Wesley (Interim)	B.A., Tor	Math	1903	750
	Madill, Alonzo J (Interim)	B.A., McMaster	Sci	1902	600
Parkhill	McDougall, Neil	B.A., Tor	Sci	1896	825
	Libby, Minnie Fennessy	B.A., Vic	Fr., Ger. (Interim) Eng. Hist	1895	625

	Guest, Emily J.....(Interim)	M.A., Tor.	.....	1901	525
Pembroke	Ross, Ralph	B.A., Tor.....	Class.....	1895	1,200
	White, Edwin Theodore	B.A., Tor.....	Math	1901	900
	Saunders, William John .....(Interim)	M.A., Queen's.....	Sci.....	1900	750
	Shirreff, Robert Marshall	.....	Fr., Ger. (Interim)	1895	800
Petrolea.....	Bell, John Johnstone	B.A., Tor.....	.....	1888	1,200
	Clyde, William	M.A., Queen's.....	.....	1888	1,050
	Balls, George Herbert	B.A , Tor.....	Math. (Interim)	1899	750
	Donaldson, William	B.A., Tor.....	.....	1902	750
Picton	Dobson, Robert.....	B.A., Vic	Math	1880	1,200
	Morden, Gilbert Walworth.....	B.A., Queen's	Sci.....	1895	1,000
	Reynar, Marianne Beatrice...(Interim)	B.A., Vic	Eng., Hist., Fr., Ger..... ...	1901	550
	Dolan, John Henry..... . ..	B.A., Queen's	Class.....	1899	1,000
	Robeson, William R .....(Interim)	B.A., Manitoba	....	1902	700
Port Arthur.....	McCulloch, Andrew	M.A., Queen's.....	....	1894	1,300
	Morgan, James W.....	.....	Eng., Hist	1890	1,100
Port Dover.....	Liddy, William R	B.A., Tor...	Sci.....	1897	800
	Martin, John Strickler.....	B.A., Tor.....	.....	1898	600
Port Elgin.....	Lillie, John Turner..... .	B.A., Vic	Class.....	1889	1,100
	Innis, Alexander R.....	.....	....	1892	750
	Keefe, Reuben Daniel. .....(Interim)	B.A., Tor.....	.....	1902	600
Port Hope.....	Kirkconnell, Thomas A.....	B.A., Queen's.....	Math	1888	1,300
	Caesar, Lawson.....	B.A., Tor.....	Class.....	1900	900
	Weir, Annie	B.A., Tor.....	Eng., Hist., Fr., Ger	1897	800
	Moir, Catharine Elizabeth	.....	.....	1896	600
	Anderson, Frank Cecil.....(Interim)	B.A , Queen's.....	Sci	1902	800
Port Perry	McBride, Dugald.....	B.A., Vic	Class, Math	1871	1,300
	Stone, George	.....	.....	1883	850
	MacArthur, Christina M.....	.....	.....	1895	600
Port Rowan.....	Pugsley, Edmund.....	B.A., Vic	Sci.....	1896	900
	Hord, Alfred Henry ..... (Interim)	M A., Queen's.....	Eng., Hist	1903	400
Prescott	Rose, Robert Charles	B.A., Tor.....	Math	1896	1,080
	McPherson, Hattie Georgina..(Interim)	B.A., Queen's.....	Eng., Hist., Fr., Ger	1900	550
	Kerfoot, Horace W .....(Interim)	B.A., Queen's.....	... .	1901	600
Rat Portage.....	Roberts, Thomas Henry .....(Interim)	B.A., Tor.....	....	1902	1,100
	Poole, Franklin C.....(Interim)	.....	.....	1902	900
Richmond Hill	Farquharson, Robert Andrew	B.A., Queen's.....	Eng., Hist., Fr., Ger	1899	900
	Shaw, Robert	B.A., Tor. and McMaster.....	....	1902	600

4. List of Principals and Assistants of Collegiate Institutes and High Schools, January, 1903.—*Continued.*

High Schools.	Names of teachers.	Degree.	Specialists.	Date of appointment.	Salary.
Sault Ste. Marie	Green, Leslie Arnold (Interim)	B.A., Tor	Class	1902	1,100
	McNeely, Priscilla Victoria (Interim)	M.A., Trin	Sci	1902	700
	Campbell, Alexander	B.A., Tor	Math	1902	900
Simcoe	Christie, James Douglas	B.A., Tor	Eng., Hist., Fr., Ger	1889	1,300
	Galbraith, Robert	B.A., Queen's	Math	1899	900
	Thompson, John Fletcher	B.A., Tor	Class	1899	850
	Morgan, John James	B.A., Vic	Sci	1903	800
Smith's Falls	Houston, John Arthur	M.A., Trin	Math	1887	1,200
	Stubbs, Samuel J	B.A., Tor. and Queen's	Eng, Hist., Class	1897	900
	Morgan, Joseph	B.A., Queen's	Sci., (Interim)	1900	750
	Pitcher, Winona Jessie (Interim)	B.A., McGill		1901	500
Smithville	Tremeer, James	B.A., Vic	Class	1898	950
	Hill, Mary Alpena (Interim)			1902	400
	Martin, Alice (Interim)	M.A., Queen's	Math	1902	400
Stirling	Kennedy, George E	B.A., Vic	Sci	1893	900
	Dickey, Martha Ada (Interim)	B.A., Tor	Eng. Hist., Fr., Gr	1902	450
	Hutchinson, May R (Interim)			1902	400
Streetsville	Cameron, Aldis W	B.A., Tor	Eng., Hist	1898	800
	Forbes, William B		Sci	1901	650
Sydenham	Henry, Thomas McKee	B.A., Tor	Math	1903	1,000
	Brown, Percy William		Sci	1903	700
	Henstridge, Elizabeth (Interim)	M.A., Queen's	Eng., Hist., Fr., Gr	1901	500
Thorold	Bald, William Francis	B.A., LL.B., Tor	Class	1898	1,000
	Smith, Margaret T Hubner			1898	600
	Ireland, Franklin N (Interim)	B.A., Manitoba		1902	500
Tillsonburg	Ross, Alexander H. D	M.A., Queen's	Sci., Math	1896	1,000
	McLennan, Alexander L	B.A., Queen's		1900	700
	Wyatt, Malcolm			1902	600
Trenton	Ingall, Elmer Ellsworth	B.A., Tor		1895	1,050
	Longman, Edwin		Math	1892	775
	Pattee, Mrs. Ada		Eng., Hist	1889	750
Uxbridge	Park, Henry George	B.A., D.Pæd., Tor	Class	1888	1,000

	Barr, Lydia A			1891	500
	Smillie, Robert (Interim)	B.A., Tor	Math	1902	650
	Harrington, James T			1902	500
Vankleek Hill	Jamieson, Thomas	B.A., Vic	Math	1889	1,000
	MacLean, Walter Inglis (Interim)	B.A., Tor	Class	1900	650
	Shepherd, Martin W (Interim)	B.A., Tor		1902	600
	McLaurin, Peter C (Interim)	B.A., McMaster	Sci	1902	600
	MacLean, Katherine G	B.A., Queen's		1902	550
Vienna	Bigg, Edmund M	M.A., Tor	Sci	1901	750
	Waldron, Lottie (Interim)			1902	450
Walkerton	Morgan, Joseph	M.A., Tor	Class	1881	1,200
	Witton, James Gayford	B.A., Tor	Math	1896	1,000
	Day, Alfred Ernest	M.A., Queen's	Eng., Hist., Fr., Gr	1901	800
	Cheswright, Richard C		Sci	1900	800
Wardsville	Elliott, Thomas E	B.A., Tor	Eng., Hist., Fr., Gr	1901	800
	Goulding, Hannah Mitchell (Interim)			1902	400
Waterdown	Perry, Peter	M.A., Trin	Class	1902	800
	Gunn, Daniel Wesley (Interim)	B.A., McMaster	Math	1901	600
	Aitchison, Belle			1897	400
Waterford	Mills, John Hudson	M.A., Queen's	Class	1899	1,050
	Saunders, William Robt	B.A., Queen's		1900	625
	Conlin, Evelyn (Interim)	B.A., Tor	Eng., Hist., Fr., Gr	1902	500
Watford	Potter, Charles	B.A., Tor	Math	1892	1,000
	Race, Wilfred Ballentine			1893	750
	Ramsay, James Alex (Interim)			1902	500
	Bambridge, Celia (Interim)			1900	425
Welland	McCuaig, Herbert M	B.A., Queen's		1891	1,100
	McNiece, James	B.A., Tor	Sci	1895	900
	Foster, Jessie		Fr., Ger. (Interim)	1889	500
	Buchner, Claribel (Interim)			1901	500
Weston	Kennedy, Thomas	M.A., Queen's	Math. (Interim)	1902	750
	Hawkins, Maud Mary (Interim)	B.A., Tor	Eng., Hist., Fr., Ger	1901	400
	Tennant, Isabella Leathem (Interim)	B.A., Tor	Eng., Hist., Fr., Ger	1901	400
Wiarton	Snell, Joseph A	M.A., Queen's	Math	1895	1,050
	Baines, Archibald W	B.A., Trin		1895	700
	Jermyn, Percy Thomas (Interim)	B.A., Tor		1901	600
Williamstown	MacDonald, James	M.A., Queen's	Class	1898	1,100
	Witheril, Ebenezer Rufus	B.A., Queen's		1895	800
	Millar, Frederick Gourlay	B.A., Tor		1900	700

Recapitulation.

Number of Schools. Sex of Teachers.		Number of Teachers.		Salaries.		Universities, etc., of Teachers.	
		Collegiate Institutes.		*Collegiate Institutes.*		*Collegiate Institutes and High Schools.*	
Collegiate Institutes	40	Principals	40	Highest salary	$2,800	Toronto	307
High Schools	94	Assistants	245	Average " Principals	1,584	Victoria	38
	134	Total	285	" " Assistants	1,016	Queen's	109
				Average salary	$1,096	Trinity	15
						McGill	1
						McMaster	9
						Manitoba	2
						British	1
						Interim Certificates	119
						Specialists	353
						Interim Specialists	96
						D. Paed	3
						B. Paed	4
						Graduates	474
						Non-Graduates	119
		High Schools.		*High Schools.*			
		Principals	94	Highest salary	$1,400		
		Assistants	214	Average " Principals	1,034		
Teachers.		Total	308	" " Assistants	675		
Gentlemen	483			Average salary	$785		
Ladies	110						
Total	593						
		Grand Total.		*Summary.*			
		Principals	134	Highest salary	$2,800		
		Assistants	459	Average " Principals	1,198		
		Grand total	593	" " Assistants	857		
				Average salary	$934		

APPENDIX Q.—*HIGH SCHOOL CADET CORPS.*

Colonel Peters, District Officer Commanding, Military District No. 1, in his report to the Department states that,

His Worship Mayor Beck of London, Ont., very kindly presented a most handsome Silver Shield for competition among the different Cadet Corps in Military District No. 1;

That the conditions were to be Lee Enfield Rifle, Gallery Cartridges, and "Peter's" Target;

And that the following schools entered, making the scores as detailed opposite their names:

London	100
Chatham	64
Mount Forest	110
Galt	58
Petrolea	(Retired)
Seaforth	86
Guelph	107
Goderich	(Retired)

The Shield was won by Mount Forest.

Col. Peters adds that this shield will be competed for annually; and that the Musketry has proved to be of the greatest assistance in keeping up the Companies outside of its importance otherwise, owing to the interest taken by the Boys in actual practice.

ANNUAL

ARCHÆOLOGICAL REPORT

1902.

BEING PART OF

APPENDIX

TO THE REPORT OF THE

MINISTER OF EDUCATION

ONTARIO.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.

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1903.

CONTENTS.

	PAGE.
Presentation	3
Accessions to the Museum	5
Notes on some Specimens	24
Ossuary at Bradford	34
Ossuary in Warwick	36
Ossuary at Orillia	37
Effigy Pipes in Stone, by G. E. Laidlaw	37
Notes on North Victoria, by G. E. Laidlaw	57
Archæology, of Blenheim township, by W. J. Wintemburg	58
Neutral Village sites in Brant county, by F. W. Waugh	70
Archæology, of Malatude, Yarmouth and Bayham townships, by R. T. Anderson	79
Identification of St. Ignace II, and of Ekarenniondi, by Rev. A. E. Jones	92
Iroquois Folk Songs, by A. T. Cringan, Mus. B	137
Notes on Sites of Huron Villages in the Township of Oro, Simcoe County, Ontario, by A. F. Hunter, M.A	153
Rainmaking	184
Reports Wanted	185
John Wesley Powell	186

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Hon. Richard Harcourt, M.A., K.C., Minister of Education :

Sir,—In presenting you with the Archaeological Report for 1902, I have to state that the year has, on the whole, been a comparatively uneventful, though a prosperous one, as far as the Museum is concerned.

My appointment by you as Superintendent of the whole of the Provincial Museum demanded so much time in the office that it was impossible to spend any in the field,but as you recommended the employment of several gentlemen (most of whom have hitherto assisted us quite gratuitously) to examine and report on sections of the province with which they are thoroughly familiar, it is certain that you will find the results as herewith embodied, much more satisfactory than if the whole task had been attempted by myself, or by any one person in such a short time.

As the nature of our work becomes better and more widely known, gifts made to the museum increase in quantity, and improve in quality. This is no doubt attributable also to the fact that there is more reading done on ethnological topics as these are popularized in newspapers and magazines. Fewer people now look with contempt on collections of specimens illustrative of primitive life, or regard them as so much bric-a-brac, and not nearly so many persons profess to know exactly the uses or purposes of everything artificial in bone, clay and stone. Statements are made more cautiously, and questions are asked with more intelligence as time goes on.

As an evidence of the increased interest taken in matters ethnological, it may be stated that last winter the Curator was invited to address the Young People's Association of the Bond Street Congregational Church, the Woman's Missionary Society of the Metropolitan Methodist Church,and the Kindergarten teachers of this city. To the last named, four lectures were given on the origin of music, decoration, games, and superstitions.

The most important additions of specimens that have been made during the year (nearly two thousand in all) include two hundred from Dr. R. W. Large, British Columbia; a small, but valuable collection of eoliths and paleoliths from England and Ireland, presented by R. D. Darbishire, Esq., Manchester, England; a numerous supplementary accession to the Waugh collection by Mr. F. W. Waugh; upwards of seven hundred from Mr. W. J. Wintemberg, nearly a hundred and thirty from Mr. R. T. Anderson, and about one hundred of Eskimo origin from the Rev. I. O. Stringer, Missionary on Herschel Island, near the mouth of the Mackenzie River.

For want of case-room a considerable number of specimens are stowed away, and for the same reason much of the material now in cases is too crowded to be seen to advantage.

During the summer a good many public school classes, accompanied by their teachers, have spent part of some Saturdays in the museum. Visits of this kind are encouraged, but it is a question whether they should not rather form a part of the every-day teaching than be reserved to encroach on what has come to be regarded as a day of "no school."

Occasional use has been made of the ethnological material by artists, for composition in wall pictures, and for book illustrations. As additions are made to the collection, it will probably be still more utilized in this way, in connection with the growing demand for newspaper and book embellishment.

Having with your consent attended the New York meeting of the International Congress of Americanists, whose discussions related to the origin, distribution, history, physical characteristics, languages, inventions, customs and religions of the native races of America, and to the history of the early contact between America and the old world, I was thus afforded an opportunity to become personally acquainted with a large number of the principal European and American ethnologists, in company with whom, after the close of the week's session, I was privileged to visit all the most important museums in the United States, namely, the New York Museum of Natural History, the National and Smithsonian in Washington, that of the Pennsylvania University in Philadelphia, of the Carnegie Institute in Pittsburg, Eden Park Museum in Cincinnati, and the Field Columbian in Chicago. Besides these I had special opportunities to examine the collections in the Academy of Sciences, Buffalo, and in the Children's Museum, a branch of the Brooklyn Institute, New York. To see so many large cabinets of this kind, and to observe the methods employed in cataloguing, installing, arranging, labelling, and general management, enabled one to make comparisons not otherwise possible, and the result of these comparisons will, it is hoped, tend in time to the effecting of improvements in our own institution.

I have the honor to be,

Yours respectfully,

DAVID BOYLE.

23090, Granite Pestle, Dr. T. E. Craig, Manchester, Indiana. 23091, Photograph of a cliff dwelling, Colorado, Joseph Workman, Walsenburg, Col. 23092, Indian skeleton, from Taylor's Point, Sandwich, Ontario. Harold R. Hatcher, Comber. 23093, Cannon balls, Niagara-on-the-Lake. 23094, Birch-bark torch, used by the Mississauga Indians of Wikwemikong Reservation, Sandfield Township, Manitoulin Island, F. W. Waugh. 23095, Wooden pot hook, used by the Mississaugas of Wikwemikong Reservation, Sandfield Township, Manitoulin Island, F. W. Waugh. 23096, Appears to be a carved nut, Lotteridge Farm, Hamilton Beach, procured from the son of the man who found it. See Report, 1899, pp. 29, 30, improperly numbered there 24471. 23097, Carved nut procured from Mrs. De Blaquiere, formerly of Woodstock, Ont. She thought the specimen was of Maltese design, it resembles in style 23096, 23098, Pebble used as a hammer, Braeside Farm, Richmond Hill, John N. Boyle. 23099, 23100, Small stone mortar and pestle found on coast of S. California by Master Andrew Boyle, from David Boyle. 23101, Stone hammer (Houstie), Calistoch, Bella Bella. 23102, Bear's tooth pendant, Charles Windsor. 23103, Small stone axe, Charles Windsor, Bella Bella. 23104, Spinning disc or whorl, Arthur Ebbstone, Bella Bella. 23105, Playing disc, Charles Windsor, Bella Bella. 23106, Stone hammer, R. W. Large, M.D., Goose Island. 23107, None. 23108, Hammer from bone of whale, for beating cedar for mats, Bella Bella, B.C. 23109, Chief's horn spoon, Herbert Hurnchil, Bella Bella. 23110, Chief's horn spoon, Bob Lawson, Bella Bella. 23111, Dance whistle, Daniel Houstie, Bella Bella. 23112, Mussel shell, used as a knife, Bella Bella. 23113, Indian Cedar box made by Capt. Carpenter, Bella Bella. 23114, Indian cedar box, made by Chief Robt. Bell, Bella Bella. 23115, Small key-ring, made by Bella Bella Indians. 23116, Silver brooch, made by Oliver, Albert Bay. 23117, Bracelet, made by Oliver, Albert Bay. 23118, Eagle brooch, made by Oliver, Albert Bay. 23119, Stone used for paint by Capt. Carpenter, Bella Bella. 23120, Abalone (haliotis) shell pendant, Bob Lawson, Bella Bella. 23121, Stone axe (Klah-qua-bah-la). 23122, Stone playing disc, Dr. Sam, Bella Bella. 23123, Stone playing disc, Alfred Wilson, Bella Bella. 23124, Cedar playing disc, J. Quanootne, Bella Bella. 23125, Key-ring, by Gen. Dick, Bella Bella. 23126, Stone axe (Klah-qua-bah-la), Rev. J. Edgar, China Hat. 23127, Hydabasket, Alfred Wilson, Bella Bella. 23128, Stone axe (Klah-qua-bah-la), Old Sandy, Bella Bella. 23129, Stone Halibut Sinker, old, Bella Bella. 23130, Stone paint-pot, Rev. J. Edgar, Bella Bella. 23131, Stone hammer (Houstie), Bella Bella. 23132, Stone hammer (Houstie), Johnny Reid, Bella Bella. 23133, Stone Hammer (Houstie), Fireman, Bella Bella. 23134, Stone fragment (Houstie), Bella Bella. 23135, Dance mask, used by Interior or Stick Indians, made by Daniel Houstie, Bella Bella. 23136, Stick-Siwash (or Interior Indians) Mask, purchased from Solomon, Bella Bella. 23137, Stick-Siwash (Interior Indians) Mask, purchased from Solomon, Bella Bella. 23138, Dance whistle, Daniel Houstie, Bella Bella. 23139, Carved Eagle, Paul George, Kimsquick. 23140, Canoe

paddle, made by Gen. Dick, Bella Bella. 23141, Walking stick made by Dr. Sam, Bella Bella. 23142, O'wekeno walking stick, Timothy Hunt, Bella Bella. 23143, Carved walking stick made by Daniel Houstie, Bella Bella. 23144, War club, made by Chief Robt. Bell, Bella Bella. 23145, Old-time halibut hook and sinker made by Daniel Houstie, Bella Bella. Hooks are made from scap ula of mountain sheep. 23146, Small totem pole, Fort Rupert. 23147, Food-box, representing beaver with stick in front paws, made by Capt. Carpenter, Bella Bella. 23148, Playing disc, Frank West, Bella Bella. 23149, Stone used by Indians in cooking sea-weed. After oolichan oil is added heated stones are put in. Willie West, Bella Bella. 23150, Old-time Indian cradle, made by Enoch, Bella Bella. 23151, Carved stick used to keep in position the pad used to flatten infants' heads when in the cradle, made by Daniel Houstie, Bella Bella, B.C. 23152, Stick used to suspend cradle. 23153, Carved whaling-paddle, Daniel Houstie, Bella Bella. 23154, Carved wooden totem pole, Fort Rupert. 23155, Indian dance whistle (Chief Robt. Bell), Bella Bella. 23156, Woman's hat, made from cedar rootlets, painting representing an eagle, Fort Rupert. 23157, Carved walking stick, by Dr. Sam, Bella Bella. 23158, Cedar bark canoe baler, Fort Rupert. 23159, Whale bone mat beater used to pound the cedar bark. 23160, Club used to stun halibut before hauling the fish into the canoe, Bella Bella. 23161, Dance head-dress used by Fort Rupert Indians. 23162, Dance neck ornament, used by Fort Rupert Indians. 23163, Stone axe (Klah-qua-bah-la), Bella Bella, Mr. Harris. 23164, Stone used for painting, Capt. Carpenter, Bella Bella. 23165, Bear tooth, tobac-co pipe, Bella Bella. 23166, Stone axe (Klah-qua-bah-la), Bella Bella. 23167, Stone axe (Klah-qua-bah-la), Bella Bella. 23168, Stone axe (Klah-qua-bah-la), Bella Bella. 23169, Stone axe (Klah-qua-bah-la), Bella Bella. 23170, Slipper case, representing frog made by Bella Bella women. 23171, Halibut sinker, Bella Bella. 23172, Mortar representing frog, Bella Bella. 23173, Silver brooch (Sock-eye salmon), Fraser River. 23174, Silver earrings, Fort Rupert. 23175, Silver earrings (child's), Fort Rupert. 23177, Chief's spoon (very old), Chief Noonequas, Bella Bella. 23177, Common wooden spoon, Bella Bella. 23178, Stone war club, Bella Bella. 23179, Stone hammer (Houstie), Bella Bella. 23180, Stone ham-mer (Houstie), Bella Bella. 23181, Stone hammer (Houstie), Goose Island. 23182, Stone hammer, fragment, Bella Bella. 23183, Stone hammer, fragment, Bella Bella. 23184, Stone hammer, fragment, Bella Bella. 23185, Stone hammer, fragment, Bella Bella. 23186, Stone axe (Klah-qua-bah-la), Bella Bella. 23187, Modern harpoon hook, Bella Bella. 23188, House post, Bella Bella. 23189, House post, Bella Bella. 23190, Roughly carved human figure, Gen. Dick, Bella Bella. 23191, Roughly carved human figure, Gen. Dick, Bella Bella. 23192, Roughly carved human figure, Gen. Dick, Bella Bella. 23193, Roughly carved human figure, Gen. Dick, Bella Bella.

23101 to 23193 from Dr. R. W. Large, Bella Bella, British Col umbia.

23194, Clay pipe stem, found by Rev. E. A. W. Dove, Wm. Weir's farm, Harvey township, Peterboro' County, Ontario. 23195,

Small stone chisel, Rev. E. A. W. Dove, Harvey township, Peterboro' County, Ontario. 23196, Small stone bead (catlinite), one inch long, lot 5, con. 5, Brantford township. 23197, Thirty small sheet brass beads, native make, lot 5, con. 5, Brantford township. 23198, Soap-stone pipe, a curious combination of a short tube with a projection, which was perhaps used as a handle. 23199-23207, Stone axes and chisels (adzes), from 2 3-4 to 6 inches long, Oxford township. 23208, Small stone tool, 3 3-4 inches long; perhaps a degraded adze, now blunt at the cutting end, which is ground down to a smooth and slightly angular face 1-4 inch wide, as if it had been used for rubbing or polishing purposes, Oxford township. 23209, Bar-amulet, slightly elevated in the middle, with holes diagonally at each end, Oxford township. 23210, Imperfect banner-stone, one of the pointed ends broken, the other rounded down, hole ½ in., Oxford township. 23211-23212, Unfinished tablets of slate, about 4 inches long, 1 5-8 inches wide, little more than 1-8 inch thick, no holes, from Oxford township. 23213, Small tablet-like (Huronian) slate object, 3 1-2 inches long, sharpened at one end, one hole near opposite end. Oxford township. 23214, Opalescent quartzite arrowhead, Oxford township. 23215, Argillite spear or arrowhead, roughly made, Oxford township. 23216-17, Two well-formed arrowheads of chert, with serrated edges, Oxford township. 23218-21, Leaf-formed flint and chert tools from 2 1-4 to 4 inches long and from 1 inch to 2 inches wide, Oxford township. 23222-23259, Arrow and spear heads, 1 1-2 by 1, to 3 1-2 by 2 inches, Oxford township. 23260, Small chert scraper, Oxford township.

From 23196 to 23260, gift of F. W. Waugh, Toronto.

23261, Bone arrowhead, beautifully formed, W. C. Perry, Winnipeg. 23262, Large, ovoid white stone bead, of very hard material, W. C. Perry, Winnipeg. 23263-5, Three well-made iron arrowheads, W. C. Perry, Winnipeg. 23266-90, Chipped arrow-tips of quartz, quartzite, agate, jasper, chalcedony and obsidian, W. C. Perry, Winnipeg. 23291, Photograph, woman of Accra (Gold Coast), Africa, grinding meal to make "kinkey" (native food), Dr. Jas. F. Boyle. 23292, Photograph Fetish woman of Accra (Gold Coast, W. Africa), getting ready to dance. Dr. James F. Boyle. 23293, Photograph, Foulah woman, Liberia (West Africa), Dr. James F. Boyle. 23294, Small stone adze, lot 11, con. 14, East Williams township, Middlesex County, Andrew J. Ross. 23295-23318, Eoliths from various places, Kent County, England, R. D. Darbishire, Manchester. 23319-23328, also 23364, Paleoliths (river gravel), Swanscombe, near Greenwich; R. D. Darbishire, Manchester, England. 23329-23339, Flakes and tools, Ancient beach, Kilroot, County Antrim, Ireland, R. D. Darbishire, Manchester, England. 23340-23344, Flakes and chips, Coleraine, River Bann, Ireland, R. D. Darbishire, Manchester, England. 23345-23350, Flakes and tools, River Bann, Londonderry County, Ireland, R. D. Darbishire, Manchester, England. 23351-23358, Flakes and scrapers, White Park Bay, Antrim, Ireland (Seaside fields) R. D. Darbishire, Manchester, England. 23359-23363, Scrapers, Antrim Co. 23364, Celts (paloeoliths), Antrim Co., Ireland, from R. D. Darbishire, Manchester, England. 23365-23376, Chert axes (paloeoliths), (valley gravel), R.

D. Darbishire, Manchester, England. 23377, Small and imperfect brass pot, found in an Indian grave, when the foundation of a house was being dug at Taylor's Point, near Sandwich, in the spring of 1901. Paul Taylor, Windsor. 23378, Small horn spoon, Taylor's Point, Sandwich, Ont., Paul Taylor, Windsor. 23379, Head of bone comb, carved snake; Taylor's Point, Sandwich, Paul Taylor, Windsor, Ont. 23380-23390, Part of necklace, Taylor's Point, Sandwich, Ont., Paul Taylor, Windsor, 1902. 23391-94, Part of neck lace, Taylor's Point, Sandwich, from Paul Taylor, Windsor, Ont. 23395, Large bone bead, rude pattern scratched on one side, Seeley farm, Brantford township. F. W. Waugh. 23396-400, Five small arrow points, Clay township, Scioto County, N. A. Chapman, S. Ohio. 23401, Small white chert drill, Clay township, Scioto County, N. A. Chapman, S. Ohio. 23402, Spear head from Purdy farm, near junction of McKay's and Purdy's Creek, East Nissouri, Co. Oxford, from L. D. Brown, Lakeside. 23403, Unfinished banner-stone, James Thompson's farm, West Nissouri, Middlesex County, L. D. Brown, Lake side. 23404, Stone tube from McCallum's farm, south boundary, Blanshard, County of Perth, L. D. Brown, Lakeside. 23405, Flint knife, found by George Carey at St. Mary's, County of Perth, L. D. Brown, Lakeside. 23406, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23407, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23408, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23409, Cayuga Pagan dance rattle, Indian Reserve, Tuscarora, Brant County; Red Cloud (William Bill). 23410-23411, Bone or horn pins, Seeley farm, Brantford township. 23412, Wild turkey bill, bored, Seeley farm, Brantford township. 23413, Bone awl or perforator, Seeley farm, Brantford township. 23414, Unfinished and broken banner stone, Dick farm, Brantford township. 23415, Pottery, shell-tempered, Seeley farm, Brantford township. 23416, Bone in preparation for needle, Seeley farm, Brantford township. 23417, Knife or arrowhead, Seeley farm, Brantford township. 23418, Plain clay pipe, Seeley farm, Brantford township. 23419, Small saw, Seeley farm, Brantford township. 23420, Phalange of red deer, Seeley farm, Brantford township. 23421, Horn pin, Seeley farm, Brantford township. 23422, Small rubbing stone for bone or horn pins, Seeley farm, Brantford township. 23423, Two upper molars, red deer. Andrew Westbrook's farm, Brantford township. 23424, Right lower jaw of beaver, Seeley farm, Brantford township. 23425, Left upper jaw of beaver, Seeley farm, Brantford township. 23426, Humerus of fox or small wolf, Seeley farm, Brantford township. 23427-9, Metacarpal and metatarsal bones of black bear, Seeley farm, Brantford township. 23430, Molar of black bear, Seeley farm, Brantford. 23431-23433, Phalanges of red deer, Seeley farm, Brantford township. 23434, Claw of large hawk, Seeley farm, Brantford township. 23435, Wolf-canis occidentalis, Seeley farm, Brantford township. 23436, Lower jaw of red deer, Seeley farm. 23437, Part of conch, worked—near Walker's farm. Brantford township. 23438-23515, Beads from Busycon perversum,

Walker's farm, Brantford township. 23516-23586, Beads-columella of small conchs, Walker's farm, Brantford township. 23587, Hematite—rubbed pigment, Walker's farm, Brantford township. 23588, Necklace, with human hair, bought at Calgary, Blood Indian, worn at time of purchase, Thomas Green, Toronto. 23589, Anterior rib (Cariacus virginianus), Seeley farm, Brantford township.

From 23410 to 23589, gift of F. W. Waugh, Toronto.

23590, Beaded watch-pocket, Kiowa Indians, Saddle Mountain, Oklahoma, U.S.A., Miss Crawford. 23591, Rattle sticks, Tuscarora dances, Wm. Bill, Ohswekin, Ontario. 23592, One plate of baleen (whale bone), 4 feet long. 23593, One blubber-bucket of driftwood, native manufacture, Eskimo. 23594-23595, Two tobacco pipes, Eskimo. 23596, One loche fish-hook (Loucheux Indians). 23597-23598, Two marmot snares of whalebone (Eskimo). 23599, One slate (woman's), knife, Eskimo. 23600, One bone and steel spear (toggle) head, Eskimo. 23601, One old curved steel knife, native make, Eskimo. 23602, One specimen of babiche, Eskimo. 23603, One ornamented (woman's) bag, made of skin from water fowl's feet, Eskimo. 23604, One small baby deerskin bag, Eskimo. 23605, One small dried Arctic rat bag. 23606-23610, Five miniature brass and copper imitations of spoons and women's knives, used as personal decorations, Eskimo. 23611-23613, Three small bone ornaments, representing fish neatly carved, Eskimo. 23614, One piece of jadeite, used to sharped knives, Eskimo. 23615, One rabbit snare of whalebone, Eskimo. 23616, One Eskimo medicine man's box with complete collection of his charms for the cure of disease (the box in question and its contents are of difficult acquisition, and are accordingly very interesting and valuable. 23617, Skin of pelican (Pelecanus erythrorhyncus),* shot by the Eskimo near the mouth of the Mackenzie River. This marks the first record of the bird being found so far to the north. (Transferred to biological department). 23618, One ice-scratcher used as a decoy to catch seals, Eskimo. 23619-20, Two small human figures, man and woman, dressed to show costume of the Eskimo. The man holds a drum in his hand. By means of strings the head and arms may be moved. The woman's figure shows how the baby is carried below the hood. The dress of both is complete. 23621, One pair of sealskin water-boots highly ornamented. 23622-23623, Two spears, illustrating the combination of shaft and toggle-heads. 23624, One ivory box with lid, used by the Eskimo women to hold "jewelry." 23625, One model of an Eskimo sleigh, 2 feet 3 inches long, shod with bone and in every particular exemplifying the sleigh in common use in that part (mouth of Mackenzie River) of the Arctic regions. 23626, Large Eskimo drum, very well made and showing much ingenuity. 23627, Bow in deerskin case, Eskimo. 23628-23633, Six arrows for the bow in deerskin case. 23634-41, Eight arrows for a larger bow, Eskimo. 23642-23647, Six dress ornaments representing small fish, carved from ivory, Eskimo. 23648, Small fish-hooks of bone and iron, Eskimo. 23649-23651,

* "They are rarely seen as far north as the Great Slave Lake." *Explorations in the Far North*, by Frank Russell, p. 256. 1898.

Three large fish-hooks of bone, ivory and iron, Eskimo. 23652, Large dipper, five inches wide with handle made from horn of mountain sheep. Loucheux Indians. 23653-23654, Two knives (girls'), bone and steel, Eskimo. 23655, Tobacco pipe, native make, Eskimo. 23656, Set of dog harness for sleigh, Eskimo. 23657, Large bag of skin, neatly made, used as a general receptacle in the snow houses, Eskimo. 23658, Pair of deerskin gloves, Eskimo. 23659, Pair of deerskin boots, legs ornamented, sealskin soles, Eskimo. 23660, Pair water boots, plain, Eskimo. 23661, Beaded tobacco bag, Eskimo. 23662, Tobacco bag of deer and squirrel skin, Eskimo. 23663, Bag made from skins of birds' feet, Eskimo. 23664, Bag made from neck of large bird, Eskimo. 23665, Netting needle and measure for the net meshes, ivory, Eskimo. 23666, Woman's labret. This is a large specimen, and apparently very old, the custom of wearing labrets (lip ornaments), is now almost out of use. 23667, Deer snare of whalebone, Eskimo. 23668, Small ermine-skin bag, or pocket, Eskimo. 23669, Bag, beaded to represent flowers, Loucheux Indians. 23670, Small dressed deerskin, Eskimo. 23671, Pair of moccasins, ornamented with porcupine quill work, Loucheux Indians. 23672, Head-dress of noted Eskimo chief (Anahlook). 23673, Large ivory fork or rowlock to attach to the stern of canoe for the steering oar. 23674, Beaded fire bag, plain, straight line pattern, Eskimo. 23675, Medicine man's mask, an exceedingly rare kind of specimen, probably the only one in a Canadian collection, Eskimo. 23676, Pair of moccasins, ornamented with porcupine quill work, Eskimo. 23677, Bone knife used to cut snow into blocks for house-building, Eskimo.

From 23592 to 23677 were procured from Rev. I. O. Stringer, of Herschel Island, Mackenzie River.

23678, Spade-shaped implement (cast), probably of Saussurite, from the Shield's mound, near the mouth of the St. John River, Duval County, Florida, C. B. Moore. 23679, Spade-shaped implement (cast), of fine grained igneous rock (diorite), from mounds at Mt. Royal, Putnam County, Florida, Clarence B. Moore, Philadelphia, Pa. 23680, Chisel (cast), probably of greenstone, from mound at Mt. Royal, Putnam County, Florida. Clarence B. Moore. 23681, Implement (cast), probably of claystone, ploughed up at Goodland Point Isl. of Marco, Lee County, Florida, Clarence B. Moore, Philadelphia, Pa. 23682, Ceremonial axe (cast), of volcanic stone from the "Thirty Acre Field" Mound, Montgomery County, Alabama, Clarence B. Moore, Philadelphia, Pa. 23683, Skull from ossuary on the Walker farm, lot 10, con. 2, Township of Onondaga, Brant County, F. W. Waugh, Toronto. 23684, Rubbing stone from village-site on Mitchell place (old Seeley farm), lot 9, 1st range, south of Hamilton road, dug from a cabin site marked by a bed of ashes 21x5, F. W. Waugh, Toronto. 23685, Drill, Mitchell place, lot 9, 1st range, south of Hamilton road, Brantford township. F. W. Waugh, Toronto. 23686, Saw or scraper, Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township. F. W. Waugh, Toronto. 23687, Arrowhead, roughly made, Mitchell place, Brantford township. 23688, Flint knife, field near Langford, Ontario. 23689,

Pipe bowl, from J. Walker's farm, lot 10, con. 2, township of Onondaga, Brant County. 23690, Pipe bowl, from bed of creek, Mitchell place, lot 9, 1st range south of Hamilton road. 23691, Stone axe (light-colored one), found in bank of stream near village site on the Mitchell place, lot 9, 1st range south of Hamilton road. 23692, Hammer stone made from boulder of Hudson River shale, found on small camp-site, discovered on farms of Thomas Laidlaw and Mr. Ira Vanderlip, back portion of lot 10, 1st range south of Hamilton road, Brantford township. 23693, Flint knife, lot 10, 1st range south of Hamilton road, also arrow heads from same lot. F. W. Waugh, Toronto. 23694, Perforated antler from Mitchell place, lot 9, 1st range south of Hamilton road. 23695, Bone awl, fibula of red deer, sharpened for use as an awl, village site on Mitchell place (old Seeley farm), lot 9, 1st range south of Hamilton road, Ontario. 23696, Pottery fragment from T. Laidlaw's and Mr. Ira Vanderlip's farms, back portions of lot 10, 1st range south of Hamilton road, found in ashes—or refuse-dump on hillside. 23697, Stone axe, found in fields near Langford, Brantford township, Ontario. 23698-23700, Three bones of red deer from which beads or tubes have been cut, found in ash-beds on Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township, Ontario. 23701, Pebble, with natural perforation, showing signs of use as a pendant, from Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township. 23702, Perforated goniobasis shell, from Mitchell place, lot 9, 1st range south of Hamilton road. 23703-23706, Four unio shells from ash beds on Mitchell place, lot 9, 1st range south of Hamilton road, also from T. Laidlaw's farm, back portion of lot 10, same range, and from Lang and Dowling farms, back portion of lots 4 and 5, 1st range, north of Hamilton road. 23707-23716, Ten pottery fragments from Mitchell place, lot 9, 1st range south of Hamilton road, Brantford township. 23717-23747, Thirty-one scrapers from Mitchell place and vicinity lot 9, 1st range, south of Hamilton road, Brantford township, Ontario. 23748-23757, Ten bone tubes or beads, village-site on Mitchell farm, lot 9, 1st range south of Hamilton road (black one, from bed of creek), others from ash dumps and cabin sites, made apparently from the bones of various animals, such as deer and small quadrupeds and birds. 23758, Hammer-stone, grooved, John Vague, per Rev. Dr. John Maclean, Carman, Manitoba. 23759, Hammer-stone, grooved, John Fremlin, per Rev. John Maclean, Carman, Manitoba. 23760, Hammer-stone, grooved, Wm. Malouney, Carman, per Rev. Dr. John Maclean, Carman, Manitoba. 23761, Hammer-stone, grooved, Stanley Woodruff, per Rev. Dr. John Maclean, Carman, Manitoba. 23762, Human skull, Waianae, Hawaii (found on the beach), Miss Agnes Deans Cameron, Victoria, B.C. 23763, Shell necklace of 52 water-worn fragmentary univalves, worn by a Hawaiian woman; Miss Agnes Deans Cameron, Victoria, B.C. 23764, Small basket, made by a west coast of Vancouver Island Indian, Miss Agnes Deans Cameron, Victoria, B.C. 23765-23914, Disc wampum (150 pieces), F. W. Waugh, Toronto. 23915-23953, Thirty-nine small triangular neckless arrow tips of chert, found in various places in Brantford township, F. W. Waugh, Toronto. 23954, 23955, Two small and finely serrated chert saws, Brantford town-

ship. F. W. Waugh. 23956, Strip of metal from 1-8 to 3-16 in. wide and 7 3-4 inches long, cut from European brass kettle, preparatory to the making of small beads like 23197, lot 5, con. 5, Brantford township, F. W. Waugh, Toronto. 23958, catlinite bead, 2 1-4 inches long and 1-4 inch in diameter (cylindrical), F. W. Waugh, Toronto. 23959, Imperfect celt or pestle, Rev. Dr. John Maclean, Carman, Manitoba. 23960, Clay pipe bowl, Victoria Park, Collingwood, D. Williams. 23961, Large photograph (full length) of Chief Jamieson, Six Nation Indians, F. W. Waugh, Toronto. 23962, Small photograph (full length) of Wm. Jacobs, F. W. Waugh, Toronto.

From Mr. W. J. Wintemberg. 23963-64, Deer horn pottery markers from village-site on lot 10, Snyder's Road con. S., Wilmot tp. 23965, Deer horn pottery marker. Camp on lot 11, Snyder's Road con. N., Wilmot tp. 23966, Deer horn pottery marker (fragment) village-site on lot 11, con. 8, Blenheim tp. 23967, Worked bone. Village-site on lot 10, Snyder's road con. S., Wilmot tp. 23968, Rubbing stone, Lot 17, con. 12, Blenheim tp., T. Ware. 23969, Large ladle or spoon. Qu'Appelle, N.W.T. 23970, Catlinite tube-pipe. Qu'Appelle, N. W. T. 23971, Porcelain bead from a mound in South Carolina. 23972, Bone bead from village-site on lot 10, Snyder's road con. S., Wilmot tp. 23973, Pottery slick or scraper made of a species of unio. Village-site, lot 11, con. 8, Blenheim tp. 23974, Fragment of bone implement, village-site, lot 41, con. 12, N. Dumfries tp. 23975, Right ramus of lower jaw of deer (Cariacus virginianus), with portion holding the incisor teeth sawed off. Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23976, Sawed left ramus of lower jaw of some carnivorous mammal, perhaps a wolf, village-site on lot 10, Snyder's road Con. S., Wilmot tp. 23977, Bone of deer or elk (?), with a portion sawed off. Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23978, Phalangeal bone of a moose (?), with holes bored in at the ends. Laidlaw village-site, lot 11, con. 8, Blenheim tp., T. Ware. 23979, Notched bone awl, Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23980, Notched bone awl. Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23981, Canine tooth of black bear, village-site on lot 15, Snyder's Road con. S., Wilmot tp. 23982, Bear tusk, from Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23983, Bear tusk, Welsch's village-site, lot 9, Beasley's New Survey, Waterloo tp. 23984, Molar tooth of bear. Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23985, Canine tooth of wolf. May have been set in a handle and used as pottery markers. From the same locality as 23984. 23986, Large incisor tooth of beaver. Elliott village-site, lot 41, con. 12, N. Dumfries tp. 23987, Left valve of unio gibbosus with umbo ground level. Laidlaw village-site, lot 11, con. 8, Blenheim tp. 23988, Long bone tube from camp on lot 11, Snyder's Road con. N., Wilmot tp. 23989-23992, Bone awls and pottery markers from Laidlaw village-site, Blenheim tp. 23993-95, Bone awls; one broken. From village-site on lot 10, Snyder's Road con. S., and camp on lot 11, Snyder's Road con. North, Wilmot tp. 23996-24008, Fragments of pipe bowls and stems from Laidlaw village-site, Blenheim tp. 24009-10, Fragments of bowl and stem of pipes. Elliott village-site, N.

Dumfries tp. 24011, Pipe bowl, fragment, Welsch's village-site, Waterloo tp. 24012, Pipe stem. Elliott village-site, N. Dumfries tp. 24013-14, Portions of pipe bowls. Laidlaw village-site, Blenheim tp. 24015-30, Pottery fragments from Laidlaw village-site, Blenheim tp. 24031-32, Pottery fragments from Elliott village-site, N. Dumfries tp. 24033, Pottery fragment from Welsch's village-site, Waterloo tp. 24034-38, Pottery fragments from village site, lot 10, Snyder's road, con. S., Wilmot tp. 24039, Piece of burnt pottery clay. From same locality as 24034-38. 24040-42, Chunks of burnt pottery clay. 24042, may have been an animad effigy; on one end there is a rudely modeled hind leg. From Laidlaw village-site, Blenheim tp. 24043, Chert implement. Blenheim tp. 24044, Rude chert implement, from Laidlaw village-site, Blenheim tp. 24045, Fragment of limestone implement with a narrow and shallow groove around it. From same place as 24044. 24046-49, Hammer stone. Laidlaw village-site, Blenheim tp. 24050-51, Hammer stones. Lot 10, Snyder's Road, con. S., Wilmot tp. 24052, Broken celt, degraded to hammer. Same locality. 24053-54, Round pebbles from Welsch's village-site (Waterloo tp.) and Laidlaw's village-site (Blenheim tp.) respectively. 24055, Muller or pestle. Elliott village-site, N. Dumfries tp. 24056, Fish net sinker. Cayuga Lake, N.Y. 24057-63, Various stone implements, some fragmentary, Laidlaw village-site. 24064, Small celt, lot 13, con. 13, Blenheim tp. 24065, Part of a gorget (?). Laidlaw village-site. 24066-67, Roughly made adze and celt. Lot 10, Snyder's road, con. S., Wilmot tp. 24068, Slate chisel from Elliott village-site, N. Dumfries tp. 24069, Celt. Lot 4, con. 13, Blenheim tp. 24070, Celt. Lot 14, con. 13, Blenheim tp. F. Stauffer. 24071, Double-edged adz. Lot 11, con. 10, Blenheim tp. C. Hiller. 24072, Adze. Lot 11, con. 10, Blenheim tp. 24073, Unfinished celt. Lot 2, con. 12, Blenheim tp. G. Campbell. 24074, Syenite adze. Lot 16, con. 2, Block A, Wilmot tp. J. Bowman. 24075, Fragment of a nicely-made celt, Roseville, Ont., J. Good. 24076, Large piece of chert from lot 11, con. 10, Blenheim tp. C. Hiller. 24077, Chert "core," Laidlaw village-site, Blenheim tp. 24078, Unfinished grooved axe. Lot 10, con. S., Snyder's road, Wilmot tp. 24079, Piece of chert from same locality as 24076. 24080, Unfinished adze or celt. Laidlaw village-site, Blenheim tp. 24081, Rough celt, evidently an emergency tool. Elliott village-site, N. Dumfries tp. 24082, Fragment of stone implement. Laidlaw village-site, Blenheim tp. 24083, Small celt. An attempt has been made to remove one side of this specimen by pecking two grooves, one on each side, the entire length of the implement. Same locality as 24802. 24084, Stone implement. Elliott village-site, N. Dumfries tp. 24085, Chert axe. Mr. Chas. Hiller. Lot 11, con. 10, Blenheim tp. 24086, Unfinished celt. Lot 17, con. 12, Blenheim tp. 24087, Rough stone chisel. Lot 10, Snyder's Road con. S., Wilmot tp. 24088, Fragment of small chisel. Laidlaw village-site, Blenheim tp. 24089, Gorget. Halifax County, West Virginia. 24090, Half of a very fine ceremonial from Mason County, West Virginia. 24091, Celt. Mercer County, Ohio. 24092, Pestle. Big River, San Francisco County, Missouri. 24093-97, Arrowheads. Mason County, West Virginia. 24098, Chert implement. Laidlaw vil-

lage-site, Blenheim tp. 24099, Stone adze from near Honolulu, Hawaiian Islands. 24100, Nut cracker. Village-site on lot 23, con. 10, Blenheim tp. 24101, Pair of straw shoes. Tung Chow, China. 24102, Chinese chop sticks of bamboo. Tung Chow. 24103, Bank note, Tung Chow. 24104, Ink tablet. Tung Chow. 24105, Paper and envelope. Tung Chow. 24106, Pen. Tung Chow. 24107, Piece of cinerary pottery excavated from the ruins of an old abbey, supposed to be 800 years old, near Castleacre, Norfolkshire, England. Mr. John Day, Washington. 24108-109, Pottery fragments. West Alexander, Pennsylvania. 24110, Shell beads from Indian graves. Same locality. 24111, Arrow head. West Alexander. Pa. 24112, Obsidian arrowhead of a peculiar shape. Oregon. 24113, Fragment of pipe bowl with glazed surface. Welsch's village-site, Waterloo tp. 24114, Pottery sherd. Lot 10, Snyder's road, con. S., Wilmot tp. 24115, Notched scraper. Ada, Ohio. 24116, Bird point, Ada, Ohio. 24117, Shaly chert arrowhead. Lot 17, con. 13, Blenheim tp. 24118, Arrow head, N. Dumfries tp. 24119, Unfinished stone implement, Lot 10, Snyder's road con. S., Wilmot tp. 24120, Large piece of chert. Same locality. 24121, Fragment of limestone pipe. Same locality. 24122, Unfinished stone implement. Same locality. 24123-24, Chert implements. Same locality. 24125, Chisel. Same locality. 24126, Broken celt, degraded to hammer. Same locality. 24127, Broken adze with corners pecked and battered, the intention, no doubt, being to form a grooved implement of some sort. From same locality as Nos. 24119-126. 24128, Bone awl, lot 10, Snyder's road con. S., Wilmot tp. 24129, Chert arrowhead, lot 8, con. 13, Blenheim tp. W. Perry. 24130, Adze, lot 11, con. 10, Blenheim tp., C. Hiller. 24131-132, Chert and chalcedony arrow heads (24132 may be a scraper). From lot 12, con. 12, Blenheim tp. K. Cumming. 24133, Adze, lot 10, con. 8, Blenheim tp., J. Black. 24134-35, Bone awls, Laidlaw village-site, Blenheim tp. 24135-38, Bone awls, Elliott village-site, N. Dumfries tp. 24139, Leaf-shaped chert scraper or arrow-point, lot 12, con. 14, Blenheim tp. 24140, Bone bead, Laidlaw village-site. 24141-42, Chert scrapers, Laidlaw village-site.' 24143, Rib-plate of Chelydra serpentina. Elliott village-site, N. Dumfries tp. 24144, Chert scraper, Blenheim tp. 24145-46, Bone implements, Laidlaw village-site (Blenheim tp.) and Elliott village-site (N. Dumfries tp.) respectively. 24147, Carved portion of bone awl, Laidlaw village-site. 24148, Worked bone, Elliott village-site, N. Dumfries tp. 24149, Fragment of bowl of a clay pipe. Laidlaw village-site. 24150, Shell of Marginella conoidalis, ground at the apex to admit a thread. Laidlaw village-site. 24151, Part of deer's antler. Laidlaw village-site. 24152, Arrowhead, Laidlaw village-site. 24153, Spear head, Waterloo tp. 24154-56, Pottery fragments. Pre-Neutral camp site, lot 13, con. 6, Blenheim tp. J. F. Rathbun. 24157, Grooved axe. Same locality. 24158-62, Arrowheads from same locality. 24163, Scraper from same locality as Nos. 24154, 24162. 24164, Part of stone implement. Village-site, lot 14, con. 10, Blenheim tp. 24165, Broken chert perforator. Village-site, lot 14, con. 10, Blenheim tp. 24166, Pottery fragment, lot 14, con. 10, Blenheim tp. 24167, Shell of Unio gibbosus; may have been used as a pottery slick, lot 10, Sny-

der's road con. S., Wilmot tp. 24168, Fragment of another shell of the same species, from the same locality, which appears to have been perforated. 24169, Fragment of marked pottery. Same locality. 24170, Fragment of pipe bowls from same locality. 24171-174, Scrapers from same locality as Nos. 24167-70. 24175, Fragment of arrowhead with concave base. Laidlaw village-site, Blenheim tp. 24176, Fragment of clay pipe bowl. Laidlaw village-site. 24177-78, Adzes, Lot 10, Snyder's Road con. S., Wilmot tp. 24179, Pottery fragment from village-site on lot 23, con. 10, Blenheim tp. 24180, Grooved axe found near Toronto. F. Lederman, Toronto, Ont. 24181, Fragment of an adze used as a hammer. Lot 10, con. S., Snyder's road, Wilmot tp. 24182, Unfinished gorget. Lot 11, con. 10, Blenheim tp. C. Hiller. 24183, Part of stone implement, may have been a pottery smoother. Several fragments of the same shape have been found on different village-sites in Oxford and Waterloo, lot 10, Snyder's road con. S., Wilmot tp. 24184, Small well-made chisel, Laidlaw village-site, Blenheim tp. 24185, Stone implement. No. 24183, when whole, may have been of same shape. This specimen is from the same locality. 24186, Small celt, Laidlaw village-site. 24187, Chert implement. Blenheim tp. 24188, Part of stone implement, apparently of the same class as Nos. 24183 and 24189. Lot 14, con. 10, Blenheim tp. 24189, Large arrowhead, Blenheim tp. 24190, Part of chert implement, lot 12, con. 12, Blenheim tp. K. Cumming. 24191, Carved bone bead. Village-site on lot 23, con. 10, Blenheim tp. 24192, Portion of shell of unio luteolus, lot 10, Snyder's road con. S., Wilmot tp. 24193, Worked bone, lot 10, Snyder's road con. S., Wilmot tp. 24194, Broken shell, apparently a species of Quadrula, with umbo ground level. Village-site, lot 10, Snyder's road con. S, Wilmot tp. 24195, Chert implement. Blenheim tp. 24196-200, Arrowheads, Blenheim tp. 24201, Chisel. Village-site on lot 23, con. 10, Blenheim tp. 24202, Rude chisel. Village-site, lot 10, Snyder's road con S., Wilmot tp. 24203-204, Bone beads from village-site on lot 23, con. 10, Blenheim tp. 24205, Pipe stem, village-site, lot 23, con. 10, Blenheim tp. 24206, Under portion of large scraper, from same locality as the two preceding specimens. 24207, Arrowhead with serrated edge. Village-site, lot 23, con. 10, Blenheim tp. 24208, Chert specimen, village-site, lot 23, con. 10, Blenheim tp. 24209, Arrowhead, Blenheim tp. 24210, Worked bone, village-site, lot 23, con. 10, Blenheim tp. 24211, Under portion of a very fine celt from village-site on lot 23, con. 10, Blenheim tp. 24212, Rude chert implement. Lot 12, con. 11, Blenheim tp. K. Cumming. 24213, Small adze or chisel, Village-site on lot 10, Snyder's road con S., Wilmot tp. 24214, Spearhead, Blenheim tp. 24215, Pottery fragment. Lot 20, con. 3, Block A, Wilmot tp. 24216, Chert arrowhead. Blenheim tp. 24217, Chert implement, Blenheim tp. 24218, Scraper (?) Blenheim tp. 24219-20, Scrapers, Blenheim tp. (Village-site on lot 11, con. 8.) 24221, Small chipped piece of chert, looks like an arrowhead, Blenheim tp. 24222-23, Small pottery fragments, lot 4, con. 12, Blenheim tp. 24224, Cylindrical bone bead. Village-site on lot 10, Snyder's road con. S., Wilmot tp. 24225, Bone bead, blackened and polished, lot 10, Snyder's road

con. S., Wilmot tp. 24226, Disc shaped bone bead. Lot 10, Snyder's road con. S., Wilmot tp. 24227, Bead made of shell of Melantho decisa, lot 10, Snyder's road con. S., Wilmot tp. 24228-229, Bone beads, village-site, lot 10, Snyder's road con. S.,Wilmot tp. 24230, Arrowhead, from lot 14, con. 11, Blenheim tp. W. Hall. 24231, Large heavy celt, lot 11, con. 10, Blenheim tp. C. Hiller. 24232, Adze, lot 12, con. 13, Blenheim tp. A Pringle. 24233, Iron axe. Found on lot 23, con. 14, Blenheim tp. J. Knox, per T. Ware. 24234, Bone tube bearing pictographs, Beverly tp. C. H. Roberts. 24235, Cast of Bird Amulet. Original was found in Ancaster tp. C. H. Roberts. 24236, Pottery fragment (rim). Pre-Neutral camp on lot 8, con. 12, Blenheim tp. 24237, Half of an unfinished gorget from the same camp. 24238, Hammer stone, Laidlaw village-site, Blenheim tp. 24239, Whetstone or rubbing stone. Laidlaw village-site. 24240, Fragment of another stone implement, shaped like Nos. 24183 and 24185. From Laidlaw village-site. 24241, Scraper (?), Blenheim tp. T.Ware. 24242, Bone bead. Village-site, lot 11, con. 8, Blenheim tp. 24243, Canine tooth of a bear. Laidlaw village-site. 24244, Bone awl, Village-site on lot 13, con. 10, Blenheim tp. 24245, Spearhead, lot 13, con. 12, Blenheim tp. 24246, Scraper or knife, lot 12, con. 12, Blenheim tp. 24247-48, Scrapers, lot 17, con. 3, East Oxford tp. 24249, Rude arrowhead, lot 17, con. 3, East Oxford. 24250, Pottery fragment from near Pre-Neutral camp on lot 17, con. 3, E. Oxford tp. 24251, Pipe stem, lot 10, Snyder's road con S., Wilmot tp. 25252, Portion of shell of Unio ventricosus. Village-site, lot 13, con. 10, Blenheim tp. 25253, Perforator. Village-site, lot 13, con. 10, Blenheim tp. 24254, Joint of fossil lily encrinite found in an ashbed on lot 13, con. 10, Blenheim tp. 24255, Scraper. Village-site, lot 13, con. 10, Blenheim tp. 24256, Pottery fragment. Pre-Neutral camp on lot 8, con. 12, Blenheim tp. 24257, Perforator from village-site on lot 13, con. 10, Blenheim tp. 24258, Shell of Unio gibbosus (?), village-site, lot 13, con. 10, Blenheim tp. 24259-60, Scrapers, village-site, lot 13, con. 10, Blenheim tp. 24261, Arrowhead. Village-site, lot 13, con. 10, Blenheim tp. 24262, Chisel, village-site, lot 13, con. 10, Blenheim tp. 24263, Wing of unfinished "butterfly" banner-stone. Lot 13, con. 13, Blenheim tp. 24264, Ungual phalanges of deer. Laidlaw village-site, Blenheim tp. 24265, Hammer stone. Village-site, lot 13, con. 10, Blenheim tp. 24266, Portion of pipe bowl, Laidlaw village-site, Blenheim tp. 24267, Chert implement, lot 12, con. 12, Blenheim tp. 24268, Chert knife (semi-lunar shape), lot 12, con. 12, Blenheim tp. K. Cumming. 24269, Tooth of bear, may have been used as a bead, Laidlaw village-site. 24270-71, Arrowheads Lot 12, con. 12, Blenheim tp. 24272, Shell of Unio gibbosus, with umbo ground flat. Hunter village-site, lot 13, con. 10, Blenheim tp. 24273, Chert perforator (?), Hunter village-site, Blenheim tp. 24274-77, War point, Hunter village-site, Blenheim tp. 24278, Bone bead. Hunter village-site, Blenheim tp. 24279, Pyramidula alternata, found in ash bed, Hunter village-site, Blenheim tp. 24280-81, Arrow heads of a type most frequently found on village-sites in Blenheim. Hunter village-site. 24282-3, Pottery fragments Hunter village-site. 24284, Bone bead. Hunter village-site. 24285, Rough granite implement. Hunter village-site. 24286 (a and b, Pottery fragments, Burford tp. 24287, Leaf-shaped arrowhead. Laid-

law village-site, Blenheim tp. 24288, Arrowhead, lot 9, con. 11, Blenheim tp. H. Davison. 24289, Adze in process of manufacture from near pre-Neutral camp on lot 8, con. 12, Blenheim tp. 24290, Pottery fragments from same place. 24291. Very small chisel, Laidlaw village-site. 24292, Pottery fragment. Laidlaw village-site. 24293, Chert knife (?). from near Brantford. E. R. Boniface. 24294, Pottery fragment. Hunter village-site, Blenheim tp. 24295, Pottery fragment, lot 13, con. 6, Blenheim tp. J. F. Rathbun. 24296, Half of a pick-like banner-stone, lot 13, con. 13, Blenheim tp. 24297, Chert implement. Hunter village-site, Blenheim tp. 24298, Rude arrowhead, lot 17, con. 3, E. Oxford tp. 24299, Chert implement, lot 12, con. 11, Blenheim tp. 24300, Rough celt, lot 12, con. 12, Blenheim tp. 23301, Bone bead, Laidlaw village-site, Blenheim tp. 24302, Stone disk with pit in centre. Laidlaw village-site. 24303-306, Broken shell of Unio gibbosus, appears to have been perforated; pottery fragment; bone awl and very small celt, all from village-site on lot 156, German Co.'s Tract, Waterloo tp. 24307-309, Bone awls. Rudell village-site, Blenheim tp. 24310, Piece of chipped stone. Rudell village-site, 24311, Arrowheads. Rudell village-site. 24312, Bone bead curiously pitted. Rudell village-site. 24313, Shell of Pleurocera subulare, a mollusc found in the Great Lakes. Rudell village-site. 24314, Fossil Brachiopod shell from Rudell village-site. 24315, Bone awl. Village-site on lot 8, con. 8, Blenheim tp. 24316, Pottery fragment, village-site on lot 8, con. 8, Blenheim tp. 24317, Fragment of pipe bowl, village-site, lot 8, con. 8, Blenheim tp. 24318-19, Rude chert scrapers, village-site, lot 8, con. 8, Blenheim tp. 24320, Stone implement, village-site, lot 8, con. 18, Blenheim tp. 24321, War point. Rudell village-site, Blenheim tp. 24322, Arrowhead, Blenheim tp. 24323, Adze. Lot 11, con. 9, Blenheim tp. J. Harmer. 24324, Large chert object, lot 11, con. 9, Blenheim tp. J. Harmer. 24325, Chert knife, lot 11, con. 9, Blenheim tp. J. Harmer. 24326, War point, lot 11, con 10, Blenheim tp. C. Hiller. 24327, Arrowhead with bifurcated stem, lot 11, con. 10, Blenheim tp. C. Hiller. 24328-329, Arrowhead and spearhead, lot 2, con. 10, Blenheim tp. D. Brown. 24330, Small celt, lot 10, con. 10, Blenheim tp. J. Baxter. 24331-62, Unfinished chert leaf-shaped objects found en cache on the farm of Mr. Arthur Currah, lot 3, con. 10, Blandford tp. From Messrs. Currah and Bullock, the finders. 24363, Part of shell of Unio gibbosus, Hunter village-site, Blenheim tp. 24364, Arrowhead rhomboidal in cross section, lot 17, con. 3, E. Oxford tp. 24365, Arrowhead, lot 19, con. 12, Blenheim tp. I. Hewitt. 24366, Adze, lot 19, con. 12, Blenheim tp. I. Hewitt. 24367, Chert knife (?), lot 9, con. 13, Blenheim tp. H. Kaufman. 24368, Chalcedony arrowhead, lot 12, con. 12, Blenheim tp. K. Cumming. 24369-71, Leaf-shaped arrowheads, Blenheim tp. 24372, Chalcedony leaf-shaped implement, lot 22, con. 13, Blenheim tp. J. Wright. 24373, Arrowhead, lot 11, con. 11, Blenheim tp. W. Thomson. 24374, Arrowhead of a peculiar shape, lot 13, con. 6, Blenheim tp. J. F. Rathbun. 24375, Very fine drill with tip broken off. Lot 2, con. 12, Blenheim tp. G. Campbell. 24376, Part of slate implement, south half lot 12, con. 13, Blenheim tp. 24377-82 Bone beads from the Coleman village-site, lot 11, con. 2, Block

A, Wilmot tp. 24383, Bead cut from the jaw bone of a deer. Coleman village-site. 24384-85, Beads colored and blackened. Coleman village-site. 24386, Beads ornamented with incised lines. Coleman village-site. 24387-392, Bone awls. Coleman village site. 24393, Astragalus of deer, may have been used in playing a game. Coleman village-site. 24394, Bangle or pendant made from a portion of the carapace of Chrysemys picta. 24395-97, Worked bones, Coleman village-site. 24398, Part of a small gouge like bone implement. Coleman village-site. 24399, Part of a human skull. Coleman village-site. 24,400, Vertebra of a large fish; may have been used as a bead. Coleman village-site. 24401-405, Shells of Melantho decisa, used as beads. Coleman village-site. 24406, Shells of Pyramidula alternata, found in ashbeds. Coleman village-site. 24407, Shell of Zonites fuliginosus. Coleman village-site. 24408-409, Shells of Polygyria albolabris and Polygyria dentifaria from ash beds, Coleman village-site. 24410, Perforated shell of Goniobasis livescens. Coleman village-site. 24411, Shell of Unio gibbosus with umbo near the hinge ground flat. Coleman village-site. 24412, Another shell of the same species also ground down until a hole appeared in the side. Coleman village-site. 24413, Shell of the above species with anterior portion of valve cut off. Coleman village-site. 24414-15, Portions of shells of Unio luteolus and Margaritana costata. Coleman village-site. 24416, Femur of Chelydra serpentina. Coleman village-site. 24417-18, Small black slate bangles or pendants. Coleman village-site. 24419, Small black slate pebble. Coleman vilage-site. 24420, Small smooth stone, kidney shaped. Coleman village-site. 24421-24, Arrowheads, Coleman village-site. 24425-26, Scrapers. Coleman village-site. 24427, Large chert implement. Coleman village-site. 24428, Chipped piece of slate, looks like an unfinished spear head. Coleman village-site. 24429, Piece of worked deer antler. Coleman village-site. 24430, Piece of quartzite stone implement. Coleman village-site. 24431, Fossiliferous limestone pebble with hole (broken). Coleman village-site. 24432, Fossil coral, from ash bed. Coleman village-site. 24433, Chert chip with very sharp edges; may have been used as a knife. Coleman village-site. 24434-59, Pottery fragments. Coleman village-site. 24460-63, Fragments of pipe bowls. Coleman village-site. 24464, Portion of a clay ring (?). It may also have been part of a pot. Coleman village-site. 24465, Small rude adze, Coleman village-site. 24466, Fragment of "stamped" pottery ware. Coleman village-site. 24467, Fragment of a very small clay vessel. Coleman village-site. 24468-72, Pottery fragments. Coleman village-site. 24473, Part of a large clay vessel. Coleman village-site. 24474, Clay pot (restored), rim. Coleman village-site. 24475-76, Casts of slate gorgets, Blenheim tp. 24477, Wooden shoe, Philippine Islands. 24478, Pair of small shoes. Cairo, Egypt. 24479-80, Arrowheads, lot 12, con. 9, Blenheim tp. 24481, Fish scales (?). Coleman village-site. Wilmot tp. 24482, Iron axe, found under a large pine stump. Lot 4, con 2, eastern section Wellesley tp. M. Littwiller. 24483-88, Shells of Pleurocera subulare from Hunter and Laidlaw village-sites, Blenheim tp. 24489, Chert scraper, lot 22, con. 11, Blenheim tp. Wm. Gracey. 24490-91, Arrowheads, lot 23, con. 11, Blenheim tp. R. Hewitt. 24492, Pes-

tle, lot 21, con. 10, Blenheim tp. Mr. Milgau. 24493, Celt, lot 20, con. 11, Blenheim tp. Mr. Bristow. 24494, Unfinished gorget, lot 11, con. 9, Blenheim tp. 24495, Fragment of gorget. Found and donated by the late Mr. Henry Davison, lot 8, con. 11, Blenheim tp. 24496, Gorget or pendant donated by Mr. James Harmer, lot 11, con. 9, Blenheim tp. 24497, Pendant, lot 11, con. 9, Blenheim tp. J. Harmer. 24498, Fragment of an unfinished gorget, lot 13, con. 13, Blenheim tp. 24499, Unfinished pendant, lot 13, con. 13, Blenheim tp. 24500, Small pyriform pendant, Neutral village-site. Lot 11, con. 8, Blenheim tp. 24501, Bird amulet, lot 13, con. 13, Blenheim tp. 24502, Spearhead or knife, Pike County, Ill., U. S. A. 24503, Chert implement, Waterloo tp. E. Chapman. 24504, Spearhead, lot 4, con. 12, Blenheim tp. E. Chapman. 24505, Spear head, lot 13, con. 13, Blenheim tp. 24506, Spearhead, Wilmot tp. 24507, Spear head. Donated by Mr. Wm. Cook. Lot 12, con. 11, Blenheim tp. 24508, Spear head with beveled edge. Lot 1, con. 11, Blenheim tp. 24509, Arrowhead, lot 8, Snyder's road con N., Wilmot tp. L. Scherrer. 24510, Unfinished spear head. Lot 11, con. 10, Blenheim tp. C. Hiller. 24511, Spearhead. Donated by Mr. Thomas Ware, Plattsville, Ont. 24512, Spearhead, Blenheim tp. T. Ware. 24513, Arrowhead, lot 11, con. 10, Blenheim tp. D. Mackie. 24514, Arrowhead, New Dundee, Ont. E. Chapman. 24515, Arrowhead, lot 11, con. 10. Blenheim tp. 24516, Arrowhead, Plattsville, Ont. T. Ware. 24517, Leaf-shaped arrowhead. Lot 40, con. 12, N. Dumfries tp.W. Bunyan. 24518, Unfinished arrowhead, Washington, Ont. 24519, Arrowhead, Wilmot tp. R. McNichol. 24520, Arrowhead, Plattsville, T. Ware. 24521, Arrowhead, lot 3, con. 14, Blenheim tp. E. Chapman. 24522, Very roughly made arrowhead, lot 12, con. 12, Blenheim tp. K. Cumming. 24523-524, Arrowheads. Donated by Mr. C. Henneberg, Washington, Ont. 24525-547, White arrowheads, Savannah Valley, Georgia, U. S. A. 24548, Rhyolite arrowhead, Savannah Valley, Georgia, U.S.A. 24549-552, Arrowheads, Savannah Valley, Georgia. 24553, Arrowhead, lot 4, con. 12, Blenheim tp. 24554, Chalcedony knife, lot 10, con. 13, Blenheim tp. R. Richmond. 24555-556, White quartz arrowheads, Galt. 24557, Roughly made arrowhead. Plattsville. T. Ware. 24558, Very thick arrowhead, lot 9, con. 11, Blenheim tp. H. Davison. 24559, Rude arrowhead, lot 40, con. 12, N. Dumfries tp. Wm. Bunyan. 24560-561, White quartz arrowheads. Florida. 24562, Rude war point, Neutral village-site. Lot 11, con. 8, Blenheim tp. 24563, Small war point, donated by Mr. H. Davison, lot 9, con. 11, Blenheim tp. 24564, Small chert perforator. Plattsville. T. Ware. 24565, War point. Lot 13, con. 13, Blenheim tp. 24566, Rude war point. Plattsville. T. Ware. 24567, War point. Lot 10, Snyder's road con. S., Wilmot tp. 24568, Leaf shaped arrowhead. Lot 10, Snyder's road con. S., Wilmot tp. 24569-570, Leaf-shaped arrowheads. Plattsville. T. Ware. 24571, Thick, leaf-shaped piece of chert. Neutral village-site, lot 11, con. 8, Blenheim tp. 24572, Arrowhead. Lot 14, con. 11, Blenheim tp. 24573, Arrowhead. Blenheim tp. 24574, Leaf-shaped scraper or knife. Neutral village-site, lot 11, con. 8. Blenheim tp. 24575, Knife (?), lot 9, con. 11, Blenheim tp. H. Davison. 24576, Black chert implement (leaf shaped). Lot 1, con. 12, Blenheim tp. J.

Histand. 24577, Quartzite arrowhead. Galt. 24578-581, Arrowheads, Galt, Ont. 24582-583, Slate arrowheads. Galt. 24584-88, Arrowheads. Galt. 24589, Black chert arrowhead. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24590, Perforator. Blenheim tp. 24591-592, Arrowheads. Brown Co., Ohio. 24593, Arrowhead. Lot 12, con. 11, Blenheim tp. A. Wintemberg. 24594, Arrowhead. Triangular in cross section. Lot 10, con. 10, Blenheim tp. 24595, Flint knife. N. Dumfries tp. E. Chapman. 24596, War point with convex edges. Neutral village-site, lot 11, con. 8, Blenheim tp. 24597, Arrowhead. Lot 9, con. 11, Blenheim tp. H. Davison. 24598, Arrowhead, Galt. 24599, War point, lot 13, con. 13, Blenheim tp. 24600, Arrowhead, lot 11, con. 10, Blenheim tp. H. Baxter. 24601, Arrowhead with serrated edge. Lot 43, con. 12, N. Dumfries tp. W. Hope. 24602, Serrated edge arrowhead. New Dundee. 24603, Arrowhead. Lot 11, con. 10, Blenheim tp. H. Baxter. 24604, Arrowhead. Lot 11, con. 10, Blenheim tp. 24605, Arrowhead. Lot 5, con. 4, Block A., Wilmot tp. N. Bock. 24606, Rude scraper. Plattsville. T. Ware. 24607, Perforator, tip polished. Donated by Mr. H. Davison, lot 9, con. 11, Blenheim tp. 24608, Chert knife (?). Plattsville. T. Ware. 24609, War point. Lot 9, con. 11, Blenheim tp. H. Davison. 24610, Chert knife. Lot 12, con. 11, Blenheim tp. K. Cumming. 24611, Scraper. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24612, Flint knife. Lot 9, con. 11, Blenheim tp. H. Davison. 24613, Chert knife with edge worn smooth Lot 40, con. 12, N. Dumfries. W. Bunyan. 24614, Unfinished slate implement. Lot 13, con. 13, Blenheim tp. 24615, Scraper. Lot 10, Snyder's road con. S., Wilmot tp. 24616, Fragment of a chipped piece of slate, evidently intended for a gorget. Lot 13, con. 13, Blenheim tp. 24617, Scraper. Lot 8, con. 13, Blenheim tp. W. Perry. 24618, Chert implement of a peculiar shape. Neutral village-site, lot 11, con. 8, Blenheim tp. 24619, "Goose-beak" scraper. Village-site, lot 11, con. 8, Blenheim tp. 24620, Scraper. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24621, War point. Lot 13, con. 13, Blenheim tp. 24622, Arrowhead or knife. Lot 6, con. 14, Blenheim tp. J. Cassel. 24623, Small scraper or turtleback. Lot 6, con. 4, Block A, Wilmot tp. 24624, Small arrowhead. North Lake village-site, lot 10, Snyder's road con N., Wilmot tp. 24625, Black chert arrowhead, Wilmot tp. 24626, Chert perforator, Village-site, lot 11, con. 8, Blenheim tp. 24627, Fragment of a red quartzite drill, lot 11, con. 10, Blenheim tp. H. Baxter. 24628, Fragment of a drill. Plattsville. T. Ware. 24629-632, Drills or perforators. Lot 11, con. 10, Blenheim tp. H. Baxter. 24633, Rude perforator. Village-site, lot 40, con. 12, N. Dumfries tp. 24634-636, Perforators. Village-site, lot 11, con. 8, Blenheim tp. 24637, Drill, lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24638, Double-pointed drill, Galt. W. Cudney. 24639-648, Scrapers. Village-site, lot 10, Synder's road con. S., Wilmot tp. 24649-650, Scrapers, lot 11, con. 10, Blenheim tp. H. Baxter. 24651, Notched scraper, lot 9, con. 11, Blenheim tp. H. Davison. 24652-656, Rude scrapers. Village-site, lot 11, con. 8, Blenheim tp. 24657, Scraper (?). Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24658, Diminutive pipe. Village-site, lot 11, con. 8, Blenheim tp. 24659, Bowl of large clay pipe of the "cornet" type. Village-site, lot 9, Beasley's New Sur-

vey, Waterloo tp. 24660, Small pot excavated from a mound apparently made before the conquest of Mexico by the Spaniards. Costa Rica. Purchased from F. H. Lattin, Albion, N.Y. 24661, Chert implement, perhaps an unfinished arrowhead. Village-site, lot 11, con. 8, Blenheim tp. 24662, Chert implement, Blenheim tp. 24663, Red quartzite arrowhead, lot 11, con. 10, Blenheim tp. H. Baxter. 24664, Leaf-shaped arrowhead. Village-site, lot 11, con. 3, Blenheim tp. 24665-682, Fragments of war points and chert implements: (24665-68, from village-site, lot 10, Snyder's road con. S., Wilmot tp. 24669-70, from village-site, lot 11, con. 8, Blenheim tp. 24671, From village-site on lot 13, con. 10, Blenheim tp. 24672-73, Village-site on lot 23, 10th con., Blenheim tp. 24674-79, Various parts of Blenheim tp. 24680, Burgess Lake. 24681-82, Lot 13, con. 13, Blenheim tp.) 24683, Chert scraper from near Cooley Pond, Burford tp. 24684, Rough chert implement, Blenheim tp. 24685, Chert implement. Lot 40, con. 12, N. Dumfries tp. 24686, Rough arrowhead. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24687, Unfinished chert arrowhead. Lot 40, con. 12, N. Dumfries tp. W. Bunyan. 24688, Unfinished arrowhead. Plattsville. T. Ware. 24689, Rough chert implement. Village-site on lot 11, con. 8, Blenheim tp. 24690, Chipped piece of white quartz. Lot 10, Snyder's road con. S., Wilmot tp. 24691, Heavy chert implement. Village-site on lot 11, con. 8, Blenheim tp. 24692-693, Lumps of chert. Village-site, lot 10, Snyder's road con. S., Wilmot tp. 24694, "Goose-beak" scraper. Camp on lot 11, Snyder's road, con. N., Wilmot tp.

From Mr. R. T. Anderson.

Village-site No. 1.—24695, Piece of stone, used for polishing, camping site No. 1. 24696, 24697, 24698, Pipe bowls (camping site 7). 24699, 24700, 24701, Pieces of clay pipes (camping site No. 3). 24702, 24703, 24704, Unio shells, unio complanatus. 24705, Piece of pipe. Pieces of worked chert. 24718, 24719, Flint chips. 24720,24721, 24706-7, 24708, 24709, 24710, 24711, 24712, 24713, 24714, Pottery. 24715, Bone awl, used also as a tally, camping site No. 7. 24716, 24717, Pieces of worked chert. 24718, 24719, Flint chips. 24720, 24721, 24722, 24723, Pieces of chert arrowheads. 24724, 24725, Roughed-out pieces of flint. 24726, Flint drill, broken. 24727, Half of flint scraper. 24728, 24729, 24730, Bone pins, horn. 24731, 24732, 24733, Pottery. 24734, Half of banner-stone, Huronian slate. Lot 14, con. 3, Malahide tp. J. McTaggart. 24735, Gorget, lot 6, con. 7, village-site 10. Bayham tp. 24736, Gorget, lot 6, con. 7, village-site 10, Malahide tp. 24737, Flint implement, triangular, lot 23, con. 1, village-site 13, Yarmouth, close to Lake Erie, gorget, lot 6, con. 7, village-site 10. Bayham township. 24378, 24379, Drill rest, lot 23, con. 1, village-site 13, Yarmouth. 24740, Leaf-shaped implement, lot 23, con. 1, village-site 13. 24741, Arrowhead, chert, lot 7, con. 6, village-site 2, Malahide tp. 24742, Spearhead, lot 27, con. 3, village-site 15, Yarmouth. 24743, Leaf-shaped implement, lot 27, con. 3, village-site 15, Yarmouth. 24744, Leaf-shaped implement, oblong, con. 7, village-site 10, Bayham tp. 24745, Flint im-

plement, Malahide tp. 24746, Half of banner-stone, Huronian slate. Lot 6, con. 7, Bayham tp. 2474, Unfinished drill, lot 7, con. 5, Yarmouth. 24748, Flint flake, lot 7, con. 5, Malahide tp. 24749, Drill, Malahide tp. Camp site No. 4.—24750, 24751, Pieces of pottery. 25752, Piece of bowl of a very large clay pipe. 24753, Bone needle. 24754, Horn-bead, nearly finished. 24755, Piece of clay pipe bowl. 24756, Piece of deer bone. 24757, Piece of clay pipe. Camp site No. 5—24758, Piece of human bone. 24759, Piece of stem and pipe bowl. 24760, Piece of celt. 24761, Piece of pottery. Village-site No. 3—24762, 24763, Two pieces of clay pipe bowls. 24764, 24765, Pieces of pottery. 24766, 24767, Pieces of pottery, showing burnt food. 24768, 24769, Pieces of flint. 24770, Two pieces of lower jaw of red deer. 24771, One piece of pottery. 24772, Human rib. Village-site No. 1.—24773, One Unio shell, worn 24774, One deer horn. 24775, 24776, 24777, Deer bones. 24778, Piece of deer horn cut. 24779, One deer tooth. 24780, One black squirrel jaw. 24781, One hard ray or spine of pectoral fin of channel catfish. 24782, Unfinished bone awl of deer-shank. 24783, Finished bone awl of deer-shank. 24784, 24785, Species of channel catfish. 24786, 24787, Pieces of deer cranium. 24788, 24789, 24790, 24791, 24792, Deer bones. 24793, Vertebra with broken flint arrow imbedded in the bone. 24794, 24795, Black squirrel jaws. 24796, 24797, Pieces of deer skulls. 24798, 24799, 24800, 24801, 24802, 24803, 24804, Deer teeth and pieces of jaw. 24085, 24086, Bear tusks. 24087, Costal plates, snapping turtle. 24808, 24809, 24810, 24811, 24812, pieces of clay pipe stems. 24812, Awl, broken tip, and then smoothed. 24813, bone awl. 24814, Phalange of deer. 24815, Awl, made of bone of bird. 24816, Burnt claw bone. 24817, Slate pendant. 24818, 24819, 24820, 24821, 24822, 24823, Flint pieces. 24824, Worked slate pebble. 24825, 24826, 24827, 24828, 24829, Pottery. 24830, 24831, 24832, Well-marked specimens of pottery. 24833, Unfinished stone-pipe, lot 6, con. 2, village-site 5. 24834, Drilled stone. Malahide tp. 24835, Heavy flint implement, lot 6, con. 2, Malahide tp. 24836, Flint implement, Yarmouth. 24837, Large flint spearhead, lot 6, con. 7, village-site 10, Bayham tp. 24838, Part of quartz implement, lot 27, con. 3, village-site 15, Malahide tp. 24839, Flint scraper. Malahide tp. 24840, Broken flint arrows, Malahide tp. 24841, Triangular flint, lot 6, con. 7, Bayham tp. 24842, Skull, con. 6, Malahide tp. 24843, One-armed banner-stone, Malahide tp. 24844, 24845, Pieces of carapace of mud-turtle. 24846, Bone awl, end showing rubbing down after being broken. 24847, Bit of a deer rib. 24848, Axis vertebra of red deer. 24849, Base of skull of red deer. 24850, 24851, 24852, Dentary bones of channel catfish. 24853, Tibia of large beaver. 24854, Lynx, leg bone. 24855, Angle of deer jaw. 24856, Piece of crania of channel catfish. 24857, Cranial bone. 24858, Dentary of fish. 24859, Jaw of woodchuck. 24860-24861, Lower jaw of raccoon. 24862-24863, Tibial bones of Ruffed Grouse. 24864, 24865, Deer claw. 24866, Ulna of black squirrel. 24867, 24868, Pottery. 24869, Ulna of beaver. 24870, Humerus of black bear. 24871, Lumbar vertebra of deer. 24872, Fragment of slate celt, camp site 7. 24873, Bone, end cut off, camp

site 3. 24874, Small flint arrowhead, out of ash bed. 24875, Piece of horn, cut off—workman had started to drill hole. 24876, Piece of solid ashes. 24877, Bone, os calcaneum of deer, camp site 1. 24878, Bone tip of conjoined metacarpels and metatarsals of deer. 24879, 24880, Pottery. 24881, Piece of pottery, showing burnt food. 24882, Plain clay pipe bowl, camp site 1. 24883, Bone, ulna of raccoon. 24884, Scraper. 24885-907, Pottery fragments. 24908-18, Bones, various. 24919, Unio, right valve (margaritana rugosa. 24920, Distal portion of radius and ulna of wild turkey. 24921, Skull of Indian dog (site 3). 24921, Ceremonial stone axe. Carib Indians, St. Vincent, West Indies, Very Rev. Dean Harris. 24922, Edge-grooved stone axe, broad blade. Carib Indians, St. Vincent, West Indies, Very Rev. Dean Harris. 24923, Small, plain stone axe. Carib Indians, St. Vincent, West Indies. Very Rev. Dean Harris. 24924, Northwest buckskin suit. Rev. Dr. John Maclean. 24925-927, Arrowheads; two chert, one quartzite. Near Guelph (?). Rev. Dr. John Maclean. 24928-929, Chromo-lithographs of Sioux Chiefs, Red Cloud and Sitting Bull. Miss F. D. Threlkeld. 24930, Chert blade, or spearhead, Dundas street, near Cooksville, July 1st, 1902. D. G. McNab, Toronto. 24931, Model of Eskimo kayak, Greenland. Collected by Capt. Nye, of London, Eng. W. J. Wintemberg. 24932, Clavicle of large species of bird, Coleman village-site, lot 11, con. 2, Block A, Wilmot tp. W. J. Wintemberg. 24933, Adze, south half of lot 21, con. 2, Blenheim tp. (C. Buck.) W. J. Wintemberg. 24934, Stone tube, lot 11, con. 3, Blenheim tp. (J. McCrow.) W. J. Wintemberg. 24935, Spear head, lot 23, con. 3, Blenheim tp. W. J. Wintemberg. 24936, Gorget. South half lot 21, con. 2, Blenheim tp. (C. Buck.) W. J. Wintemberg. 24937, Unfinished adze. Village-site No. 4, Blenheim tp. W. J. W. 24938, Adze. South half of lot 21, con. 6, Blenheim tp. (J. Wilkins.) W. J. W. 24939, Leaf-shaped flint. Village-site No. 4, Blenheim tp. W. J. W. 24940, Spearhead. Lot 6, con. 8, Blenheim tp. (A. Cooper.) W. J. W. 24941, Shell of unio ventricosus, with umbo ground down until a hole appeared. Coleman village-site, Wilmot tp. W. J. W. 24942, Arrowhead. South half of lot 1, con. 1, Blenheim tp. (D. M. Lawson.) W. J. W. 24944, Pottery fragment. Village-site No. 1, Blenheim tp. Presented by S. K. Benham, Princeton, Ont. W. J. W. 24945, Lower jaw of an extremely aged person. Village-site No. 2, Blenheim tp. W. J. W. 24946, Large piece of chert. Village-site No. 5, Blenheim tp. W. J. W. 24947, Fragment of slate gorget. Village-site No. 2, Blenheim tp. W. J W. 24948, Worked stone. Village-site No. 2, Blenheim tp. W. J. W. 24949, Bone awl. Village-site No. 2, Blenheim tp. W. J. W. 24950, Fragment of pipe bowl. Village-site No. 2, Blenheim tp. W. J. W. 24951-953, Pottery fragments. Village-site No. 2, Blenheim tp. W. J. W. 24954-955, Perforators. Village-site No. 2, Blenheim tp. W. J. W. 24956-958, Arrowheads and knife (?). Village-site No. 2, Blenheim tp. 24959-961, Leaf-shaped chert implements. Village-site No. 1, Blenheim tp. W. J. W. 24962-963, Perforators. Village-site No. 3, Blenheim tp. W. J. W. 24964-965, Arrowheads. Village-site No. 3, Blenheim tp. W. J. W. 24966-968, Pottery fragments from Force's farm, con. 2, Burford tp. Presented by S. K. Ben-

ham, Princeton, Ont. W. J. W. 24969-978, Pottery fragments. Coleman village-site, Wilmot tp. W. J. W. 24979, Pipe bowl. Coleman village-site, Wilmot tp. W. J. W. 24980-981, Fragments of pipe bowls. Coleman village-site, Wilmot tp. 24982, Portion of shell of unio luteolus, which may have been used as a pottery slick. Coleman village-site, Wilmot tp. W. J. W. 24984, Canine tooth of bear. Coleman village-site, Wilmot tp. W. J. W. 24985, Implement made of deer horn. Coleman village-site, Wilmot tp. W. J. W. 24986-989, Bone beads. Coleman village-site, Wilmot tp. W. J. W. 24990-992, Bone awls. Coleman village-site, Wilmot tp. W. J. W. 24993, Carbonized corn leaves. Coleman village-site, Wilmot tp. W. J. W. 24994, Chinese slippers. Canton, China. W. J. W. 24995, Cast of ceremonial implement. Original found on north half of lot 21, con. 14, Blenheim tp. W. J. W. 24996, Pipe bowl. Village-site No. 5, Blenheim tp. W. J. W. 24997, Pipe stem. Coleman village-site, Wilmot tp. W. J. W. 24998, Rude arrowhead. Blenheim tp. W. J. W. 24999, Copper spearhead, found by H. B. Otis and E. Ball, northwest of Clearwater lake, in 1 1-2 feet of water. John R. Boyle, Edmonton, Alta. W. J. W. 25000, Coup stick, with head of quartzite, very elegantly formed. Blood Indians, Manitoba. Mr. James Boyle, London, Ont.

NOTES ON SOME SPECIMENS.

By David Boyle.

The harpoon, or barbed bone spear represented by Fig. 1 (7089) is one of the most gracefully formed in our collection. It is doubly barbed on each side, but, unfortunately, the tip is broken as a result of decay. The barbs in this specimen are short and round, but this condition is also attributable to decay, if not to

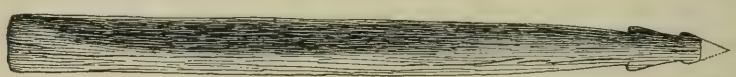


Fig. 1, (7089). Half diameter.

injury from other causes. This and another (7088) of which fig. 2 is a cut, were found by Mr. W. G. Long a few miles north of Toronto, where an unusually large quantity of bone tools has been collected.

Salmon and sturgeon of large size were formerly common in the Don and its branches, as well as in all the other streams on the north shore of Lake Ontario, and the probability is that such weapons were employed in the capture of these fish, rather than for use in the chase.

Our collection includes numerous varieties, considering the comparatively small number of specimens (only twenty-two) in our possession. These range from three to eight inches in length, and are made for attachment to handles, either by binding to the side of a shaft, or by insrtion in the end of a shaft, with or without a hole for fastening purposes. In the matter of barbs we have one, two, three and five on one or both sides, and these barbs

differ a good deal in form, some being quite sharp and pointing well backwards, and others being somewhat rounded in the axil and less acutely angled.

Fig. 2 is a good example of the larger and coarser kind, found near Toronto. This one, however, is without a hole, which, when it occurs, may be anywhere between the upper and lower thirds of the shafted portion.

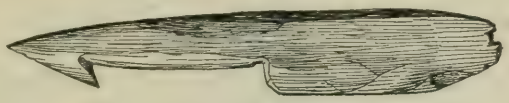


Fig. 2, (7088). Half diameter.

It has been thought that the presence of such weapons is suggestive of Eskimo influence, and when we bear in mind the traditionary original abode of the Huron-Iroquois (well down on the north shore of the St. Lawrence) there is nothing at all improbable in such a supposition, but it should be observed that the people in this part of the country do not seem to have possessed any knowledge of the ingenious Eskimo toggle-joint. The answer to this may be that here it was unnecessary to let the implement leave the hand, and that thus any such arrangement was not needful.

Buttons and button-holes were unknown to the Indians. Pins and strings were employed for fastening purposes, and during the winter season these must have been quite numerous to hold together the various articles of dress.

It is not unlikely that some of the bone objects we call awls or needles were employed either wholly so, or as one of their uses.

The one shown by Fig. 3 (8011), differs from anything else of the kind in the museum. The awls or needles are usually made by sharpening bone splinters, or by working an unbroken small bone

Fig. 3, (8011). Full size.

to a point, in either case leaving the opposite end untouched, but here, a splinter has been rubbed down perfectly smooth on both sides before being sharpened, and the head or butt is notched as if meant to be attached to something else by a string. It is too flat to have been used as a perforator, and was probably employed as a clothes fastener.

There is nothing particular about the wing bone here illustrated. Fig. 4 (7153), beyond the fact that it shows different stages of the operation for cutting it into short beads. In some cases the sections are scarcely more than marked off, in others the sawing has been carried nearly all the way round.

This piece is from near Lansing, in York township.

The leg-bone, a diagram of which is shown by Fig. 5, is an excellent example of cutting, and brings out clearly what has been observed in some other specimens (of stone as well as of

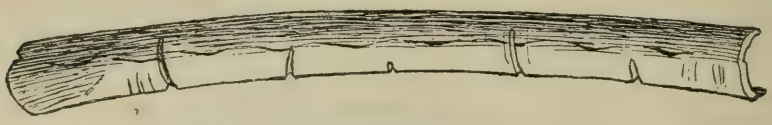


Fig. 4. Full size.

bone), namely, that only so much cutting was done as was necessary to weaken the material enough to permit of it being severed by means of a blow, or of a wrench. The partly sawn and partly broken end shows this, and the cut made near the middle does not reach the hollow of the bone.

It is somewhat difficult to believe that pieces of heavy bone like this, and even heavier, were used as beads, and yet we know

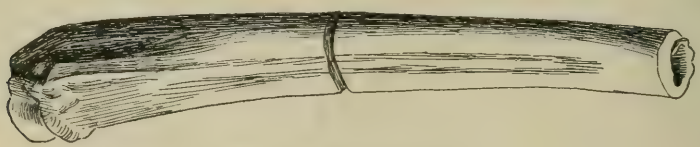


Fig. 5, (8602). Half diameter.

how cumbersome were many of the Indian personal adornments—quite as much so as are crowns and other insignia of rank. Besides, such large pieces afforded room for a considerable display of color, whether the beads were individually of one, and the whole string of various hues, or whether each bead bore a dyed pattern. as was suggested by an examination of a specimen from Eldon township. In that case (see page 23, report for 1900) pink tints in diagonal bands are plainly discernible, and since the appearance of that report Mr. George Allison of Waterdown has informed me that a bone head in his possession is similarly marked.

Even when employed as tallies as some of these large bones were, it is probable that this was only a secondary use of some suitable bead in a necklace.

It is seldom that anything like a spoon is found in Ontario, but occasionally there appears a specimen which would seem to have been used as such. This scarcity may be owing to the absence of spoon-food among the aborigines, or to the nature of the substance of which spoons were made—wood or thin pieces of bone, when mussel (unio) shells were not so employed.

In Fig 6 (516) we have a cut of what looks like a spoon made from the scapula of a deer. It was found by Mr. E. C. Waters on a village site in Brantford township, a locality which has yielded many fine specimens of bone, as well as of various other kinds.

The curved line underneath shows the depth of the hollow and the thickness of the bone.

In Fig. 7 (6292) from the collection presented by Mr. F. W. Waugh, and found in Brantford township, we have what appears to have been a tally-bone as well as a bead, for while it is probable that nearly all tally-bones were carried bead-fashion, or otherwise suspended, this one is decorated by means of incised lines in a way that none of our other tally-bones is. On the two

Fig. 6, (516). Half diameter.

opposite and more flattened sides of a large wing-bone is a zig-zag design exending nearly the whole length. On the side shown in the engraving the rude design is more distinct than on the other side where the surface is worn smoother, and the lines have suffered in consequence, if, indeed, there ever has been more than one.

There is always a temptation to regard such a design as indicating an intention to represent a snake, but in this case the lack of anything like a head gives us pause, although there is a

Fig. 7. Full size.

termination that might have been meant for a tail. That the short cross lines were employed as counters, or record marks, is barely open to doubt.

Connected with each end of the irregular line on the other side is a series of five light dots or depressions that may, or may not, mean anything.

Tools of the kind illustrated by Fig. 8 (16921) were used over a wide area in North America, and remained in vogue until within the last few years. It is, indeed, quite probable that some of the Indians in our territories still employ such implements in the

dressing of skins. An excellent example of the tool was brought by Co'onel Delamere from the Northwest, and presented by him

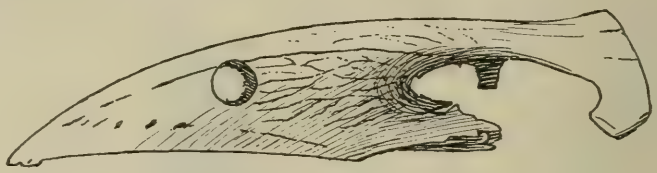


Fig. 9, (23412). Natural size.

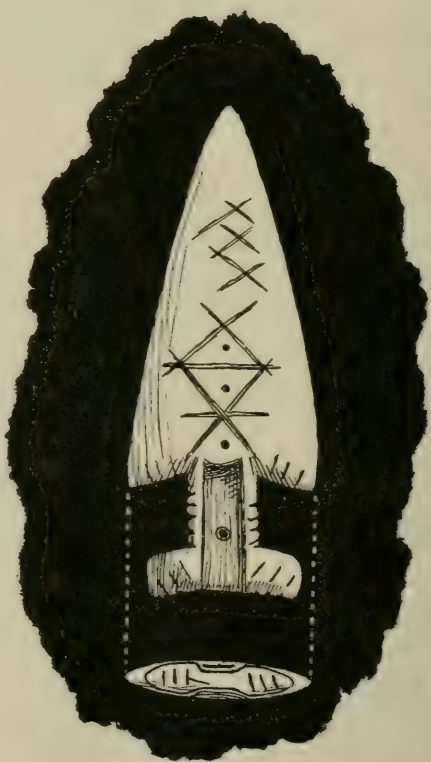


Fig. 10, (23261). Full size. Showing cross sections.

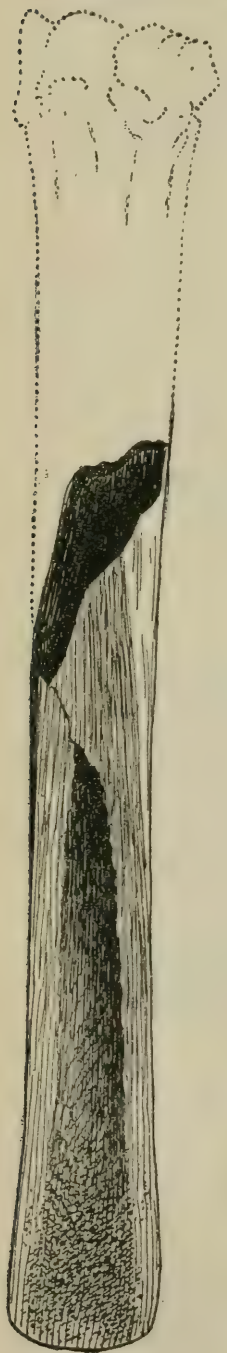


Fig. 8, . 291).
Two-thirds diameter.

to the Museum in 1889. It is evidently of recent make, for fleshy matter is still adherent round the joint at the upper or unworked

end. From the Rev. Dr. John Maclean and Lieut. G. E. Laidlaw other specimens of a similar kind have been received, and it is noticeable that in each case, the Northwest tools are serrated or toothed on the cutting or scraping edge, differing in this way from Ontario specimens, which are all plain on the edge, as in figure 8.

Tools of this kind, too, in Ontario, are usually much lighter (being made from smaller bones) than are those from Manitoba and the Territories, where the buffalo afforded an unlimited supply of excellent material.

If these were used for scraping or dressing the inner sides of skins, as is stated, one can understand that a roughened or toothed edge would add to their efficiency. Only in one case, that of our Ontario specimen, does there appear to have been any attempt made to smooth the upper end of the bone, so that if the handle was grasped by covering the end with the palm there must have been some kind of cushion to protect the hand. The tool here figured was found by Mr. Daniel Quinlan on lot 21, concession 3, Vespra, and came to us through A. F. Hunter, M.A.

To the primitive mind all sorts of odds and ends appealed for purposes of personal decoration or as charms. The most commonplace pebble, or shell, or feather, or other object might be invested with talismanic power. In this respect the old red men were not any worse than white people of our own day, who carry about with them "luck pennies," "rheumatism chestnuts," bits of coal, and the like.

The shaman's outfit, whether in Africa, or in America, consisted of such material, and he himself would be nonplussed if pressed for a reason as to why he chose this or that, to effect cures, or spells, or to secure good fortune. Fig. 9 (23412) was probably regarded as an amulet of some kind, and was thus carried on the person if we may be allowed to form an opinion from the presence of the hole. Perhaps the owner carried about with him the whole raven's head, of which Mr. F. W. Waugh, the finder, has reason to believe this was the upper mandible. In any event there can be no doubt as to the boring of the hole, and this is evidence enough that the object was carried for some purpose. That no similar specimen has, hitherto, turned up may be owing to the perishable nature of such material, if not to lack of observation on the part of searchers.

Fig. 10 (23261) is labeled "Bone arrowhead (ceremonial).Pacific coast, Brit. Col.," but, unfortunately, there is nothing certain about this specimen, for which the museum is indebted to Mr. W. C. Perry of Winnipeg, who procured it with some others of various kinds from a New Westminster lady, who could afford no further information than that it was found "somewhere along the coast," and as "the coast" may mean anywhere between Alaska nd California, it is impossible to say just where this remarkable specimen originated.

It has been labeled "ceremonial" because it would seem to have been for ornament, rather than for use. The material, which may be ivory and not bone, has been worked with far more care than one would expect to find on a common arrow, as may be seen by examining the illustration. The slot on each side of the neck for insertion in the shaft is carefully made, and the hole would seem to have been for receiving some kind of rivet to fasten the arrow to the shaft in addition to cord, or sinew bindings, if we may regard the notches on the edges of the neck as having any connection with the latter method of fastening.

The criss-cross markings on the blade may or may not have had a meaning. Both sides are marked similarly.

Should any reader be able to supply information respecting specimens of the kind the curator will be greatly obliged.

The engravings of the two cranial specimens shown here are from drawings supplied by Mr. Alfred Stirton, the gentleman who found them in Eastern Ontario.

Of four similar objects in the museum two are devoid of holes, one has three arranged triangularly round the centre, and about an inch and a quarter apart, the other has seven holes, the

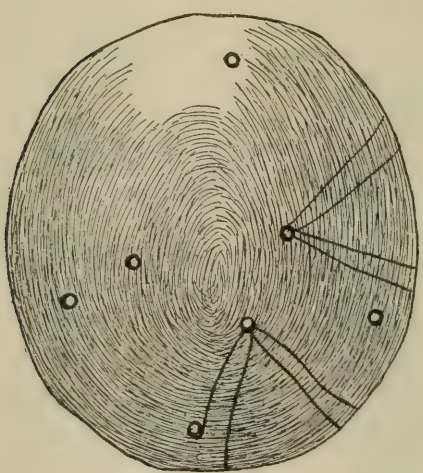
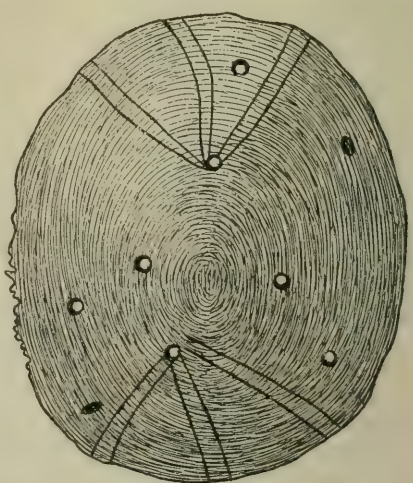


Fig. 11.



(A little over half diameter.) Fig. 12.

arrangement of which corresponds with that seen in figure 11. The two without perforation may have been used as cups, or they may be unfinished articles intended to be like the others when completed, but in no case are there any incised lines on the specimens in our cases. What such lines mean, if they mean any thing, on the convex sides of these eastern Ontario objects we may never know.

Many superstitious beliefs and practices exist among primitive peoples in connection with human skulls, or portions of them,

which are regarded as possessing some sort of talismanic influence. Two entire specimens (21387, 21388) in our possession from the farm of Mr. Harry W. Mayor, Innisfil, Simcoe County, are perforated, one with three holes and one with one. Diagrams of these were given on p. 26 in our report for 1899. As these holes were evidently bored after death it is tolerably certain that some sort of mysterious influence was supposed to be connected with skulls thus treated.

However this may have been, the specimens figured here are interesting as having appeared so far east in the province, as well as on account of the lines that have been incised on them.

The evolution of the tobacco pipe has been discussed by many writers, most of whom trace it to a simple straight tube of reed, or of cane, then of stone and clay, followed by plain curved forms, and latterly of various ornamental patterns, based mainly on angles and curves. However, this may be, not a single example of a straight tubular clay pipe has found its way to

Fig. 13, (23198). Full size.

the museum, and in our collection of fully two hundred and fifty stone pipes there are only two specimens from Ontario which are suggestive of this form. One was found on Lake Moira, in Hastings County, and the other is from Lombardy in Leeds County, about seventy-five miles farther east. In both pipes there is a slight bend.*

The specimen figured here is a true tubular pipe, connected with which is what may be called a handle, a very useful appendage to such a short and easily heated piece of soapstone as this is. It was found in Oxford township, Oxford county, but the material would indicate an origin quite as far eastwards as that of the pipes from Hastings and Leeds.

Fig. 13 formed part of a small collection made by the late Mr. J. F. McDonald, barrister, Ingersoll. Unfortunately, he kept no record of his finds or of his acquirements, so that the exact locality of this pipe is not known. In any event, the pipe here referred to is unique, as far as our collection is concerned.

* For an illustration of the Lake Miora pipe, see Report for ——, page .

The methods by means of which pieces of rough stone and other substances were shaped must always prove interesting to students of mechanical bent, and as among all the stone objects found in this country, there is none that required more skill, or a greater variety of manipulation to produce than that known as the "banner stone" or "butterfly stone," the use of which is unknown, there are, consequently no more instructive objects from this point of view. That articles of this kind were most commonly made of Huronian slate we all know, but comparatively easy as it was to work such material, considerable care must have been required in some of the operations, owing to the fragile nature of the stone. After selecting a piece of slate suitable for this purpose, the workman's first effort was to bring it into shape roughly, by flaking or chipping, after which the higher portions were reduced by means of pecking with flints, or other silicious stones. The still rough surface was next smoothed by rubbing

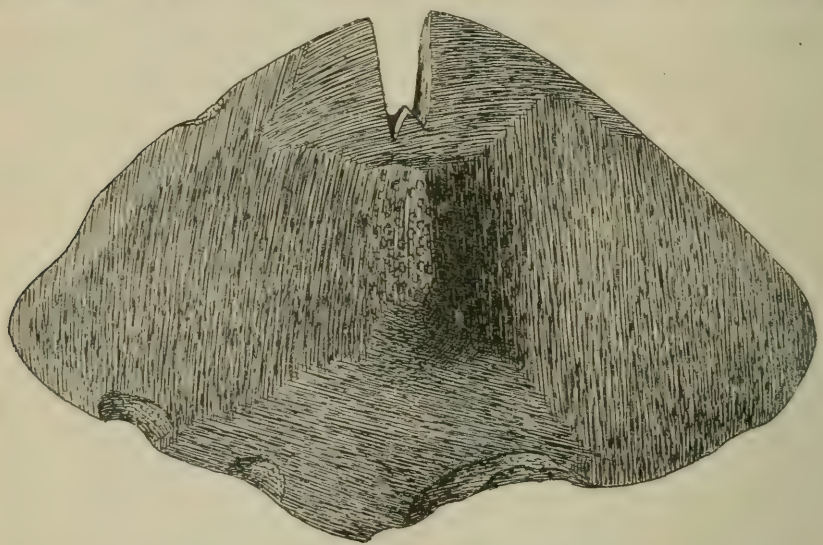


Fig. 14, (23103). Two-thirds diameter; full size.

it with some gritty material, probably sandstone. Evidence of all these operations may be observed on the specimen represented by figure 14 flaking on the lower edge, pecking on the bosses (ultimately to be bored lengthwise to meet the notch)—and the lines of abrasion consequent on the rubbing, or, as we may call it, filing. In addition to the operations mentioned, we have in this specimen an example of sawing, for the notch on one edge has been thus produced, by means of two cuts. The probable intention was to form another notch on the opposite edge, and finally to connect the two by means of a hole bored through the remaining thick portion. The only operations not exemplified on this specimen are those of boring, and of the final polishing, whereby every vestige of friction would have been removed.

The instructive specimen suggesting these remarks was found on the farm of Mr. James Thompson, West Nissouri, Middlesex County, and is the gift of Mr. L. D. Brown, Granthurst.

Fig. 15 (23208). Simple as is the appearance of the tool here figured, it presents a very uncommon feature on the lower edge, which is somewhat squarely formed, with a surface one-fourth of an inch wide, and slightly curved lengthwise, that is, from side to side of the stone. The specimen reminds one of the tool used by shoemakers to smooth the edges of boot and shoe soles.

That the present form is the result of degradation from a

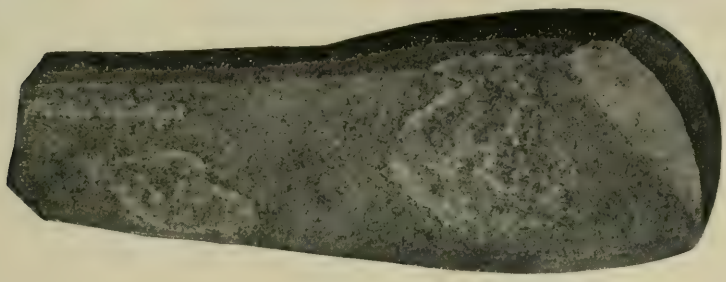


Fig. 15, (23208). Full size.

celt is quite evident, and as it is the only object of the kind that has come into our hands it possesses a little more than common interest.

It formed part of a small collection made by the late Jas. F. McDonald, of Ingersoll, in Oxford Township, Oxford County.

The imperfect specimen of which an illustration is shown by figure 16 is of a very unusual description. Mechanical combinations of galena and baryta are not uncommon, but when these

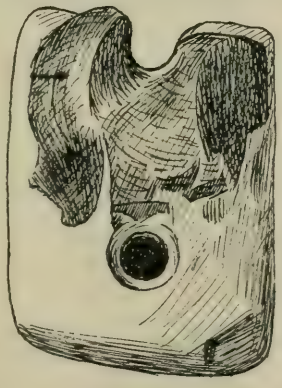


Fig. 16. Full size.

Fig. 17.

occur the impression one receives is that the process by means of which the two have been brought together has been an extremely long and slow one. This object, however, would seem to

show that in suitable conditions a coating of the heavy spar may be deposited within a comparatively brief period, for it is almost impossible to doubt that the galena body of figure 16 was formed before the coating of from a sixteenth to an eighth of an inch of spar was deposited on it. Wherever the coating is broken, the galena is exposed. The still complete perforation is lined with spar, but the one at the broken end is only partly so.

The inference is that an attractive bit of galena was first shaped into one of the perforated, boat-like forms (examples of which, though not at all common, are sometimes found of Huronian slate), and was afterwards lost—we can scarcely imagine purposely placed—where baryta eventually encrusted it. The dotted line on the side view (Fig 17) shows what appears to have been the outline of the object before it was broken.

The curious specimen here referred to was found in the Township of Woodhouse, Norfolk County, and came to the Museum from Capt. J. G. Spain.

Horn pins of various dimensions—from two to four inches long, and from three-eighths to seven-eighths of an inch in diameter—all approximately cylindrical, are often found on village-

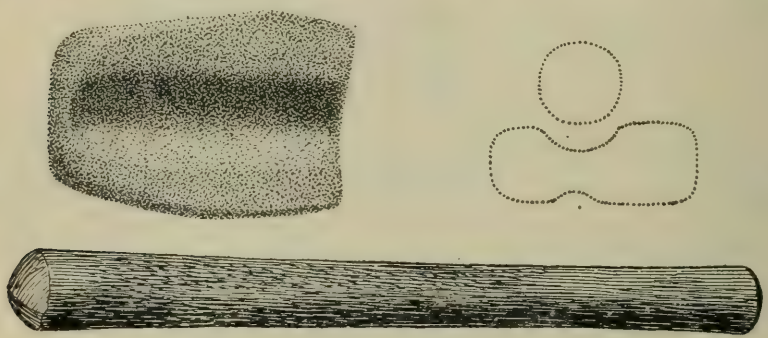


Fig. 18. Full size.

sites, and their use remains problematical, notwithstanding the simplicity of their construction. In Brantford Township, Mr. Waugh collected several of these, and in one place he picked up the stone specimen figured at 18, which seems to have been used in the shaping of such horn pins. It is of sandstone, and hollowed on both sides. That it was a rubbing stone of some kind, or, as we might say, a file, there is little doubt. One of the pins in question is figured here, as is also a cross section of the stone, showing how the one may have been used to shape the other.

OSSUARY AT BRADFORD.

West Gwillimbury is the most easterly of three townships forming the southern portion of the County of Simcoe, the old-time abiding place of the Hurons. The Holland River, taking a north by easterly course across the south end of the township before it reaches Lake Simcoe, flows through a large marsh, the

length of which is upwards of twenty miles. On the west side of this marsh, and on the upland, about a mile from the river, is the village of Bradford. Here, last April, in the course of digging a foundation for a house, the workmen came upon a small ossuary. The news soon spread that human bones had been exposed, and next day, Sunday, there were nearly two hundred people, jostling one another with spades and shovels, eager to root up the grave! No doubt the people entertained the common belief that every such place is a depository of what so many call "curios," but failing to secure a harvest of such material, they appropriated all the skulls and many of the other large bones.

The situation is on lot 14, David street, the property of Mr. John Stibbs, near the crown of a low hill, probably not more than sixty or eighty feet higher than the marsh, and on the eastern slope; the hill itself being at the north end of the village.

The pit differed in its proportions from most others that have been examined, its surface diameter being not more than nine feet, while its depth was fully five. As is usual where a scramble occurs at the opening of such places, very little reliance can be placed on statements made respecting the number of individuals whose bones were buried, but the various estimates warrant the supposition that there were not more than seventy or seventy-five.

Mr. H. S. Broughton, postmaster of the village, informed me that he saw the skulls of at least five children thrown out. This is quite uncommon in connection with ossuary burial, whatever the reason may be. Were the bones of immature boys and girls not thought worthy of sepulchral honor? or, if thus buried, did they decay more rapidly, being less solid than those of older people? In some cases it would appear that skulls were found in groups of three and four—one statement was to the effect that five or six were placed in a row, but apart from this no one observed anything like order in the disposition of the bones.

An article in the Bradford "Witness" stated at the time this ossuary was discovered, that "Two or three other pits like this have been found in West Gwillimbury in former years," but Mr. Broughton, on the other hand, says that during a residence of thirty-six years in the township he has not heard of any such event. Both statements may be correct.

About twenty-five skulls were taken from the grave. I saw several of them in the hands of villagers, and in most cases the condition of them was good. One, however, would seem to have been much longer interred than the rest; perhaps it was in a part of the ossuary where the conditions for preservation were not so good as elsewhere.

Mr. Stibbs, the owner of the property, expressed his desire that all the skulls should be placed in the Provincial Museum, and he kindly had an advertisement inserted in the local paper, asking for a return of the crania to him for this purpose, but up to the present moment not one of these has reached us, and the probability is that they still form ghastly decorations on the shelves of workshops, there to remain as "curios," or, until they can be

disposed of for "a consideration." A bank clerk, who owned one, lightly informed me that it was his intention to have the top of his sawn off and thus have the skull made into an inkstand!

OSSUARY IN WARWICK.

In the Watford "Guide-Advance" for Aug. 8th, appeared a letter from Dr. J. E. Brown, with reference to "About Twenty Human Skeletons Unearthed in a Trench in Warwick." These were found "about two feet below the surface, in soft, sandy soil," three miles south of Arkona.

Dr. Brown says:—"Skulls and bones were removed until about a dozen and a half were thrown out. With the skulls were a great many large bones of the body.

"I was present when the last of them was dug out, and I found that there were very few of the small bones, such as the bones of the hands, feet, ribs and vertebrae. There was no trace of anything else in the trench, except part of a small broken kettle. The fact is, that if the entire bodies had been buried, all the bones would have remained intact. There were but few of the ribs, vertebrae, bones of the hands and feet, and they were in as good a state of preservation as some of the larger ones, so that we are led to conclude that the missing ones could not have been buried. Another strong reason for believing that the entire bodies were not buried is that the bones were not placed in any kind of order when found.

"Again, the trench in which they were buried was not more than four or five feet in length. The bones were in a very advanced state of decay, so that when exposed to the air for a day or two the most of them would break, unless handled with care.

"Some of the bones showed that the skeletons must have been those of very large men, while others were smaller, and others again were the bones of small children. One of the most interesting features was that on the top of one of the skulls were six holes, three on each side, and on another were three holes. These holes were placed about an inch apart, and were about the size of a lead pencil on the outside of the skull, and narrowed down to the size of a slate pencil on the inside. They appeared to have been put there by some boring instrument. From the shape of the skulls, with the high cheek bones, solid jaws, perfect teeth, reclining forehead, and the comparative small size, I am inclined to think that they were those of Indians, and, from the state of disintegration of the bones, may have been those of men of the eighteenth century."

This grave would seem to have been a small ossuary, although referred to as a trench, and this view is confirmed by the facts that there was no orderly arrangement of the bones, and that many of the small ones were missing. The situation of this little communal grave so far west is worthy of note, and it is especially interesting to know that in it was found an artificially perforated skull. Two skulls similarly treated are now in the museum from the Mayor farm, Township of Innisfil, Simcoe County, one having one hole and the other three.

It is extremely desirable that specimens of this kind should be placed where comparisons may be made, and where, in a general way, they may be of most use.

OSSUARY AT ORILLIA.

Of another discovery, the Orillia "Packet," Oct. 2nd, says:—

"For years Upper Mary street was a happy hunting ground for the relic collector. In the sixties and seventies, the boys of Orillia used to make quite a business of digging up pots and tomahawks and skulls for the curious. Then when that part of the town came to be built up great numbers of skeletons were turned out in excavating cellars, building streets, etc. Of late there has been a lull; but last week there were turned out thirteen skeletons while levelling up a lot on Mary street. The remains were only a foot or two under the surface. Ten of the skeletons were together, the skulls lying within a space of two square yards. Several were at a little distance. Most of the remains had been re-interred when a "Packet" reporter visited the spot on Friday, but he was shown a skull which was almost complete, and had a full set of good teeth, with one or two exceptions near the back of the mouth. It was the head apparently of a man advanced in years, and in the crown was a round hole, over an inch in diameter, probably indicating the manner of death—a blow from a tomahawk, or other weapon. The reporter was told that one of the other skeletons was lying on its side, with the arm supporting the head, apparently buried as the man had fallen, or had died from wounds. Probably thirty skeletons in all have been turned up in the lot—a piece of ground 50x105 feet. Formerly some beads and tomahawks were found, but with the last lot there were no such relics."

EFFIGY PIPES IN STONE.

By George E. Laidlaw.

The object of the writer in this article is not so much to theorize or speculate on various recurrent forms of animal pipe sculpture in Ontario, but rather to give minute descriptions of certain known types and to compare them with similar specimens from the Huron-Iroquois territory south of the lakes.

These effigy pipes may have had a totemic significance, especially when occurring in places occupied by the clan, whose totemic animal the pipes indicate; for instance, a bear pipe found in a locality known to be inhabited, used or occupied by the bear clan, might be called a bear totem-pipe. These effigy pipes are not sporadic, but are indigenous to Huron-Iroquois territory, and are probably of a later date than is generally supposed. I place them

about the time of the advent of the white man in the St. Lawrence basin, and from that on. One coming under my notice was found in an ashbed, showing traces of contact with white men, and its angles and lines seem sharp and decisive enough to have been made with European tools. I do not think that these pipes were at all ceremonial or made for a ceremonial purpose, but no doubt they may have been used on ceremonial occasions. I rather think that they were the results of individual enterprise, and of an innate desire to represent some mammal or bird, but not necessarily one's totem, and that they formed a "vogue" or fashion about a particular period. Not placing these pipes earlier than the early Huron period, I do not hold with certain United States writers on some points, as regards their reasons for believing in the extreme modernity of these and other objects, while at the same time it is not reasonable to assign extreme age to specimens of which we know next to nothing, and where an unrecognized one, or one of rare occurrence, or some highly finished object is discovered it is immediately dubbed "ceremonial." I do not believe that the Indian had any especially "ceremonial" objects, as we employ the word ceremonial, but that any object might become "ceremonial," or invested with the property of "medicine," with them, on account of environment and association. With modern western Indians, a pipe-stem highly decorated, that had been used in a treaty, or in connection with some tribal event, became "medicine," and was kept as such, and used repeatedly, while the pipe bowl might be only a common trader's "clay." These finished forms of pipe sculpture were only the results of individual skill and taste, and an artisan could produce a number of similar specimens, given unlimited time.

The use of slots, a distinguished feature in this class, is somewhat problematical, but we may confidently assume that they were for the reception of some foreign substance, after the manner of inlaying, which could also have been imbedded in the eye holes and colored to suit—gum of some sort would be a suitable material, and then again hard substances would be used, after the manner of the inlaid metal on the Ojibwa stone pipes of Lake Superior and the inlaid shell and ivory of the British Columbia stone and horn-ware. Rev. Dr. Beauchamp figures a human head pipe with eyes of inlaid bones in his Bulletin on polished stone, New York State Museum, Fig. 97, and in all probability the inlaid metal pipes of Lake Superior and the north-west are a survival of this form of ornamentation. The general character of the bowl is that the orifice is at the shoulders, and the stem hole enters through the back, though occasionally through the front, which latter indicates a slightly older form, according to Beauchamp, who has it in his bulletin on earthenware that "the oldest pipes found in New York are of stone, the Iroquois clay pipes succeeding these early examples, and being followed by those of red pipestone, and some of the fine-grained slates," to which we may add soapstone or steatite, and the statement may be made that none of these early forms embrace the ornamented bird-mammal and human-figure pipes referred to in this paper.

Capt. John Smith, in discussing the Susquehanna Indians, states that the tobacco pipes were prettily carved with a bird, deer, or bear, or some such device. On his pipe the Indian exercised his highest taste and skill, nor did he wish to lose his own enjoyment of its beauty. Early clay pipes had the finest features within the smoker's sight, the face on the bowl being usually turned towards him. Later examples often reversed this feature, both in clay and stone (p. 114.) "As a rule, stone pipes were earlier than clay, but not invariably. A primitive feature appears in most cases, that of the face towards the smoker (p. 115), and both clay and stone pipes are rare in New Jersey, and these are inferior to those of New York, where so many of the finest examples of both are found. Equally fine are those of Canada, where they are common. At first the Iroquois made clay pipes only, but afterwards used European tools on those of stone. The early and recent pipes are distinguishable, as a rule." (p. 44, Bulletin on Polished Stone.) These effigy pipes possess to a large extent the main distinguishing features of the birds and mammals represented, and constitute a totally distinct class of pipe sculpture, peculiar to Huron-Iroquois territory, not even remotely resembling the extensive class of Mound Builders' platform effigy pipes, and all of them come from Huron-Iroquois territory in Ontario, including the country of the Neutrals. It is rather difficult to distinguish what clan localities these pipes can be relegated to: for instance, a bear and an owl pipe are found in the same site, and as there was no raven clan amongst the Hurons, to whom can be apportioned the two raven pipes? Thus, these pipes are probably the results of individual design, not having any particular relationship to totems.

Though the Jesuits mention no turtle clan amongst the Huron-Iroquois, later writers do so, notably, Wm. E. Connelley. These pipes are usually surface finds, not being associated with sites or graves, except in rare cases—(the owl pipe of Tiny is from an ash-bed)—or with mounds. McGuire thinks that the suspensory holes are a minor distinguishing feature of pipes from a "deep snow" country, and refer to the animal pipes of this variety as the "jumping jack" type! (American Aboriginal Pipes.)

Peter Kalm, in discoursing upon pipes, states that their blackened color is produced by covering them with grease and then holding them over a fire, by which they get the desired hue, and this is increased by use. Otis Mason gives practically the same for coloring earthenware.

All measurements in this article are in inches, and the reports referred to are the Annual Reports of the Ontario Provincial Museum, except when otherwise stated. All the pipes figured herein are from Ontario, except the Pennsylvania panther pipe. When no date is given in regard to the finding of a pipe, it is because it cannot be ascertained. Thanks must be tendered to Mr. A. F. Hunter of Barrie for his assistance in photographing specimens, and to Messrs. G. McLean of Collingwood and G. Allison of Waterdown for photographs, drawings and data.

Bear Pipe, Bolsover.—Fig. 84, p. 36, vol. 4, Ontario Archaeological Report, 1890.

Found by a Mr. Angus McIntyre, near Bolsover, Post Office Eldon, County of North Victoria, on the north bank of the Talbot River, in Mara Township, about 1880. Material—soapstone, with highly polished and black stained surface. Perpendicular length, 3 1-2 inches; greatest width, 2 1-16; breadth across shoulders, 1 1-8; depth of body, 1 1-4; diameter of bowl, 11-16; diameter of stem hole, 5-16; depth of bowl, 1 1-4, which is rather excavated than bored. Stem hole conically bored, edge showing very neat boring, as if by a metallic tool. There is a broad band cut around three sides of the neck, as if for inlaying purposes.* Legs are separate and are represented as clasping a branch of a tree (frontal bar). Hind legs inversed or conventionalized, to corre-

Fig. 19. (Bear Pipe.)

Fig. 20. (Panther Pipe.)

spond with front legs. Hinder part of body is produced and joined to frontal bar, with a longitudinal perforation just at the junction. Marks resembling those of a file are visible in several places. The head is remarkably well executed and large in comparison to the size of the body, being 1 9-16 by 15-16 inches. The ears are represented by two knobs and eyes by holes. The mouth is well defined. The frontal bar joins the head about the base of the jaws. The claws are slightly represented. The outline of the back is more semi-circular than is usual in these pipes.

Panther Pipe, Carden Township.—Fig. 85, p. 36, 4th Ontario Archaeological Report, 1890. Was found by G. Fox a number of years ago at Dalrymple P.O., east side of Mud Lake, Carden Township, Victoria County. The material is steatite of a mottled greenish gray color. Length, 4 inches; greatest breadth 2 5-16 inches; width across shoulders, 1 inch; depth of body, 1 1-8 inches; diameter of bowl, 11-16 inch; upper stem hole, 3-8 inch; lower,

* This depression round the neck would seem to have been the work of another hand than that of the one that made the pipe. D.B.

9-16 inch, both of which enter the bowl, and either would have to be "plugged" if the other was used. Bowl and two stem holes (not an unfrequent feature in stone pipes from this section) are conically bored. Legs, solid in pairs, and appear to be clasping a branch frontal bar, which, may be, the tail produced. This joins the head at the base of the jaws. The claws are represented on the fore paws. The apertures in front of the fore legs and in rear of the hind legs have been made by boring with diameters of about 3-8 inches, as far as can be determined. The head is in a fairly proportioned size, 1 3-8 by 13-16 inches; forehead flat, ears slightly denoted. Eyes bored clean through with a perforation of 1-4 inch diameter. The mouth is represented by a slot cut on each side of the muzzle. A slot is cut on each side of the neck, and one long narrow slot is cut on the front of the frontal bar, between the fore and hind feet. The jaws are short and heavy. The surface of the pipe is polished, but shows much wear by use.

Fig. 21. (Wolf Pipe.)

Fig. 22. (Monkey Pipe.)

A similar pipe, though carved to represent a lynx, was found in the same vicinity about the same time. All traces of this pipe have been lost.

Wolf Pipe, Whitby Township.—Was found in 1872 on Mr. Chatterson's farm, Township of Whitby, Ont. Material, greenish grey soapstone, polished. Perpendicular length, 3 3-16 inches; breadth, 13-16 inch; thickness, 1 1-4 inches; diameter of bowl across orifice, 9-16 inch, and of stem hole, 3-8 inch, both being conically bored; depth of bowl, 1 1-2 inches. There is a suspensory hole behind and three slight parallel cuts on the right side of the belly. The head is more erect than is usual; long and narrow, with deep jaws. The eyes are small holes, set close together, mouth fairly well defined, under side of lower jaw hollowed. Ears small; expression of face, sinister. There is a small perforation on each

side of the head. The pipe is long and narrow. Was obtained from Mr. G. Doolittle, of Victoria Road, in 1897, who stated that it was perfect when found, but since has had the legs and frontal bar broken off. The bar did not extend to the chin.

Monkey Pipe, Milton, Ont.—Fig. 28, p. 29, First Archaeological Report, 1887. Found by Findlay McCallum on his farm near Milton, County of Halton, Ontario. Resembles a monkey very strongly, but from length of nose may be intended for an opossum, which view is further heightened by the frontal bar being curved back, and looking like a long tail, upon the animal's shoulder on each side of the body. One of the principal features of this pipe is the number of pits, or slots, upon its surface, as follows: One on each side of the body, five large ones, six on front of the frontal bar, five smaller one across the top of the head, two smaller ones in the depression between the not fully developed ears, and a

Fig. 23. (Wolverine Pipe.)

Fig. 24. (Animal Pipe. Ryleston.)

large, shallow one on the back above the stem hole, one on each side of the frontal bar, total, twenty-six. Perpendicular length, 3 9-16 inches; width across shoulders, 7-8 inch; depth of body, 1 1-8 inches; distance from outside of frontal bar to back, 2 inches; length and width of head, 1 1-2 inches and 15-16 inch respectively, which is very large in proportion to the body, a much larger proportion than in other pipes of the same class. Diameter of the orifice of the bowl and stem hole are the same, 9-16 inch, both conically bored and evidently with the same drill. Slight incisions representing claws on the frontal bar, legs solid in pairs, eyes deeply and conically bored, nostrils marked by two small holes, not occurring in similar pipes. Lower jaw well developed underneath. Material, greenish gray soapstone; the surface of the pipe is weather worn. This pipe may be intrusive from the southern

latitudes, or it may be a representation of some animal seen by the maker when he was on a trip south.

Wolverine Pipe, Innisfil.—This pipe was found by H. Mayor, Esq., on his farm in Innisfil Township, Simcoe County, some eight or ten years ago. Material, a dark grey, or black, coarse-grained slate. The pipe is fully shaped, but not polished. Design, bold, resembling a wolverine more than any other animal, with its short broad head and heavy jaws. Oval opening between body and frontal bar has diameters 1 1-2 and 3-4 inches, no legs or feet denoted. Perpendicular length, 4 1-8 inches; greatest breadth across shoulders, 1 1-8 inches; thickness across body at stem hole, 1 1-4 inches; greatest distance between outside of frontal bar and back, 2 3-8 inches; diameter of bowl orifice, 1-2 inch, and stem hole, 5-16 inch; depth of bowl, 1 1-2 inches. Both bowl and stem hole are very neatly conically bored. Perforation at the base, or below oval opening, bored from each side, being twice attempted on left side.

Fig. 25. (Panther Pipe. Pennsylvania.)

Fig. 26. (Dog Pipe.)

Frontal bar has a deep cross nick near top, from which to top is a slight vertical cut. This may be a preliminary to the making of conventionalized front feet. The head is depressed between two small ears; the eyes are not marked. Front of mouth defined by a nick. Pipe has a wedge-shaped appearance. Marks of sawing or cutting still observable around the neck and head. Frontal bar may be a conventionalized tail. Edge of stem hole shows very neat boring, as if by a metallic tool.

Panther Pipe, Pennsylvania.—Is now in the possession of Isaac Yohe, jr., and loaned to the Carnegie Museum, Pittsburg. Was found in a mound, associated with celts, arrow-points and spear heads, near Shire Oaks, Allegheny County, Pa. Though not an Ontario pipe, is here given for comparison's sake, as it is from

Huron-Iroquois territory. Length, about 5 inches; depth from back to outside of frontal projection, 2 1-2 inches. We are indebted to Mr. W. J. Holland of the Carnegie Museum for the drawing and description. He says that "the pipe is made out of blackish or dark grey slate (Huronian), and the laminae of stratification on the slate show as in the drawing. The pupils of the eyes are conical projections from the body of the stone, from which the pipe is carved (note the difference from eyes of other pipes). The space around them is filled in with white clay, being depressed at most about 1-16 inch below the surrounding surfaces. It has been filled out, I judge, from appearances, by the finder. I judge Indians that frequented the upper waters of the Ohio belong to this stock for the most part." The Archeologist, No. 5, May, 1895, p. 176, notes this pipe and gives a short description.

Animal (?) Pipe, Ryleston, Ont.—Fig. 8, p. 18, Report 1892. It is not very clear what the pipe represents. It may be a purely

Fig 27. (Eagle Pipe.)

Fig. 28. (Laxton Owl Pipe.)

bird-pipe of the duck type (Broad Bill namely), but the large eyes militate against this supposition. The pipe is evidently finished, and may just as well be called a nondescript composite pipe, composed of a bird's body and a slightly grotesque mammal's head. I would rather term it a purely composite pipe to distinguish it from a nondescript pipe. I am not aware of any grotesque, or suggestive stone pipes from this portion of Ontario and the Huron territory, so I think that these pipes are later than the sometimes grotesque, but not obscene, clay pipes of the Hurons and kindred tribes. Perpendicular length, 3 inches; breadth, 1 inch; thickness, 1 1-8 inches; distance from back to beak, 2 1-5 inches; diameter of bowl orifice, 2-16 inch, and of stem hole, 1-2 inch; depth of bowl, 15-16 inch, both being conically bored. There are four vertical cuts, representing claws, on frontal projection, which is bored

from each side, and has a slight cut from hole to claws on each side and one underneath at end of claws. Depressed face, large, shallow pit eyes, depression on top of head. Eyebrows marked by two cuts, mouth open. Nose or end of beak blunt. Material, brownish slate, slightly clouded. Northumberland County, Ont.

Dog Pipe, Nottawasaga.—Material, grey soapstone, polished. Locality, Township of Nottawasaga, about six miles south of Collingwood; was found among the roots of a large pine stump. Length, 3 inches; width across shoulder, 1 inch; depth from front to back, 1 1-4 inches; diameter of bowl, 3-4 inch, and of stem hole, 1-2 inch, both being conically bored. There are thirteen tally marks from the middle of the back to the base, which is suspensorily perforated. Though this animal pipe has the bowl in the same position as others under discussion, it lacks the frontal bar and legs, and the stem hole comes out in front, making the animal face the smoker, which, according to Dr. Beauchamp, is characteristic of the earliest clay pipes in New York State.

Though this has been called a dog pipe, there is nothing very distinctive about the head to denote it as a dog. It might represent another animal with a blunter head than those of the original Indian dogs, which were of a sharp-nosed kind. This pipe might represent a seal seen in the St. Lawrence River by Hurons on a trading trip to Hochelaga. (See fig. 26.)

Bird Pipes.—For a comparison of Ontario bird-pipes with those from south of the border, see Bulletin on Polished Stone (Beauchamp), which gives two figures, one of a wood-pecker and the other of a partridge, Figs. 103, 107. Both of these belong to our type, and present the usual main features, even to slots and wing markings. On p. 217, Fig. 4, of Moorehead's Prehistoric Implements is depicted an owl pipe possessing some characteristics and diagnostic features as Ontario owl pipes, with a little lesser frontal projection, from Waynesburg, Pennsylvania.

McGuire gives two figures of bird-pipes of this type from the same State, one of which may represent an eagle or hawk. The other is very similar, but unfortunately has its beak broken off. Of the first mentioned, it bears a great resemblance in shape of body to the Tiny owl pipes. McGuire mentions several others from Huron-Iroquois territory south of the line. (American Aboriginal Pipes.) And the same style of work as the raven pipes appears in some Ohio bird-pipes, and one from New York is figured by Dr. Rau. Compare also this type with the bird platform type. Figs. 14 and 15, Report of Bureau of Ethnology, 1883-85. In the latter it is the posture of the bird that is referred to.

Eagle Pipe, Midland, Ont.—Report 1890, p. 37, Fig. 86. Found previous to 1890, taken from a grave at Midland City, Georgian Bay, Ont. (north of Huron territory) by Mr. Frank Roos. Material, a greyish green Huronian slate, with darker veins. It is a splendid piece of aboriginal workmanship, well finished and executed; smoothed but not polished; head, beak and feet (talons) well formed; outline of wings defined; suspension hole through tip of tail; feet separated, four talons to each (only case of separation occurring as yet in bird-pipes). Transverse holes through

feet; eyes are small, circular depressions. Dimensions, length, 5 inches; width, 1 1-4 inches; thickness back to front, 1 11-16 inches; distance from point of beak to back of head, 1 3-16 inches; diameter of bowl, 13-16 inches, and of stem hole, 7-16 inches, both bored with conical drills. Depth of bowl, 1 5-8 inches, bottom of which inclines to front of pipe. No feather marks on tail or wings.

Owl Pipe, Laxton Township.—Ontario Archaeological Report 1899, p. 49. Was found by G. Staples, Norland P.O., on his farm, lot 12, con. 8, Laxton Township (village-site 30).

This is a large rough pipe of coarse soapstone, of a grey color, showing many signs of use and wear, besides several bruises from the plow which turned it up. The features are well defined. treatment of eyes, talons, tail and wings being remarkably acute and strong. The eyes being bored by a tubular drill, and then centred for pupils by a pointed drill of lesser size. The beak is not well defined, but has a rather large open mouth. The wings are outlined and contain a number of diagonal cross cuts, diminishing in length to the tips. Another deep cut on each side runs diagonally in opposite directions, extending from wing to rear of claws. The wings behind are separated from each other by a longitudinal cut or groove from edge of bowl to stem hole. The frontal projection is unusually large, with a large transverse perforation 5-16 inch in diameter, with an upward perforation from bottom of frontal projection meeting it. The claws (feet) are defined by three cuts on top of frontal projection and longitudinal cut in front met by a pair of light horizontal cuts on each side.

The head is pyramidal, denoting either the great grey owl, or the barred owl, both inhabiting this region at intervals. The tail is represented by five long cuts on the outside and four underneath, with four nicks at the end. On the right hand side of the tail there are nine slight horizontal marks, and on the left side one, meeting the outside edge. Anus denoted. Dimensions—perpendicular length, 4 1-4 inches; greatest distance from beak to shoulders, 2 5-16 inches; width across shoulders, 1 1-4 inches; back to front, 1 1-2 inches; diameter of bowl and stem hole the same, 13-16 inch, conically drilled, the bowl being gouged out a bit afterwards, probably with a metal tool, tips of wings meeting at an angle above tail. Dept of bowl, 1 1-4 inches.

It has been suggested that this is a "parrot" pipe, rather than one representing an owl, and that it may have found its way here from the south.

Owl Pipe, Southwold.—Was found on the farm of the late Chester Henderson, Southwold, near St. Thomas. Dimensions—length, 3 3-4 inches; back to front, 1 1-8 inches; width across breast, 1 9-16 inches. Long, narrow bowl, 5-8 by 1 5-8 inches (measured from outside rim to top of stem hole in this, the eagle, and the Laxton owl pipe). Material, light drab slate, well finished, but presenting some features which have probably been added to it at a later period, namely, a large tau on breast, overlying some faint diagonal feather marks, and a similar tau with curved top on back under bowl hole. The two slight tufts represent an eared, or horned owl. Eyes bored by tubular drill, leaving raised centres. Beak and mouth well defined; shoulders sloping

and shown by a series of five curved lines. The wings marked by a deep multicurved transverse line across back, with a series of longitudinal cuts down the back, terminated by one cross cut above stem-hole, and one on each side of it lower down. Tips of wings rounded above tail and marked with a series of twelve slight edge nicks; slot cut in at butt of each wing. Tail divided by a slot, with a deep nick on each side. The large frontal projection has a large transverse hole, 3-8 inch in diameter, bored from each side with a conical drill. The claws are denoted by five cuts on top and two triangular spaces underneath on outside of frontal projection. This is a very neat, well-finished pipe, of aboriginal workmanship no doubt, but several markings added to it afterwards. On left side of top mandible is a small cross; on

Fig. 29.

(Owl Pipe. Southwold.) Fig. 30.

the other a slight curve. Then, the outlines of taus on the breast and back, if allowed, proclaim it to be modern. The tau on the back fits into the centre of the upward curve of the shoulder line, and is of the same appearance as the slots, and may have been used for the same purpose, viz., inlaying. Orifice of the stem-hole damaged.

Owl Pipe, Tiny Township.—Fig. 34, p. 103, Ontario Archaeological Report, 1901. Found on a village-site, lot 18, con. 15, Tiny Township (Huronian). This is a splendid specimen of pipe sculpture, equalling any that have come under the writer's notice as yet. Material, a dark, greenish grey striped slate, the pipe being carved in such a manner that the colorings are in longitudinal strips down each side, with the curvilinear shadings on front and back, giving a very pleasing effect. The transverse section is square, with rounded corners. Perpendicular length, 4 1-8 inches; greatest width from side to side across breast, 1 3-8 inches, and

the greatest depth, 1 5-16 inches. The body gradually tapers to a short tail. The sides are plain, with the exception of a diagonal cut from top of breast on right side to lower part of the back, probably conventionalizing a wing. The treatment of the head is much better than that of the Laxton owl pipe, and the well-defined tufts or ears on this specimen denote a horned owl. The beak is clearly cut and prominent, mouth well defined, eyes being represented by circular hollows, with the exception of a few lines on the edge of the frontal projection, probably representing claws, there are no other diagnostic features marked. The bowl and stem-holes are conically bored, the latter slightly inclined upwards. Diameter of bowl, 9-16 inch, of stem-hole, 5-16 inch;

Fig. 31. (Owl Pipe. Southwold. Side view.)

depth of bowl, 1 9-16 inches, and has been drilled with tools of different sizes, as is evidenced by rings in the lower part of the bowl. The drilling in this specimen has been well done, leaving the orifices sharp and clear, as if done by metallic tools. The surface of the specimen is smoothed, but not polished, and without marks. The frontal projection is large, as is usual in owl pipes, and the perforation, instead of passing from side to side, as it generally does, is reversed, and goes from top to bottom, and has been bored from both ends with a drill of the same size as the stem-hole. The narrower diameter of the centre of the hole shows use of conical drill. There is a cut on top of the frontal projection from the hole to the outside edge, then straight down the centre of the front, till it meets with a cutting from the hole to the outside edge of the bottom, dividing the face of the projection into two parts; on the right part are two parallel lines from top to bottom, on the left is a **X**; these may be taken to represent claws, relics showing contact with white men having been

found on this site, may have a tendency to show that this specimen is a later production of aboriginal skill.

Raven Pipe, Seagrave P.O.—Fig. 35, p. 105, Ontario Archaeological Report, 1901. Ploughed up by Mr. Charles Rennie, Seagrave P.O., thirty years ago on his farm, lot 18, con. 13, Reach Township, Ontario County. It is of excellent design and workmanship, the technical detail of head being well executed, while nothing represents the wings on the sides. The feet being only deep scratches on the somewhat protuberant frontal projection. Tail feathers are not marked. The remarkable feature about this pipe is the number of deep cavities, or slots, on the neck and

Fig. 32. (Raven Pipe.)

shoulders, there being no fewer than four on the right shoulder and three on the left, with two extra shallow ones; on the neck are three, one on each side, and one on the top; one shallow one is placed between the eyes, and one shallow one on each side of the head behind the eyes, total, ten deep, and five shallow. The deep cavities have been made by boring holes a short distance apart, and then grinding out the space between them. The shallow depressions are mere grooves. The beak is very powerful, and has the appearance of having been larger, as the lines denoting the mouth do not come to the present point. The nostrils are well defined by oblique cuts, and the eyes are represented by circular depressions. Dimensions—perpendicular length, 3 3-4 inches; greatest width of body, 13-16 inch; depth of body, 1 1-4 inches; length of head, 2 inches. The posture is such that it resembles the raven bending its head to eat something held in its claws, which is further accentuated by the prominence of frontal

projection; and it has been suggested that this projection was intended to represent a fish held in the claws, the idea being helped by the outside outline. There is a slight protuberance on the top corner of this projection, having the appearance of something having been broken off. This is in proximity to the end of the beak. Distance between back and forehead, 2 5-8 inches. Below the outlines of the feet is a suspensory hole bored by a conical drill. Bowl and stem-hole bored by conical drills, the former 1 3-4 by 5-8 inches in size, and the latter 11-16 inch in diameter, and is of more obtuse shape than the bowl. Immediately below, a second hole has been attempted, for what purpose is not definite, unless a miscalculation was made on depth of bowl, and then the attempt abandoned. Depth, 1-2 inch, and diameter 7-16 inch, coni-

Fig. 33.

Fig. 34.

(Owl Pipe. Tiny Township.)

cally shaped. Transverse section of body somewhat square, with rounded corners. An attempt has been made to delineate wings by longitudinal depressions down the breast—one on each side. From the top of the shoulders, at the junction of the neck, two cuts begin, and pass down each side of the back to the end of the wings. This is a remarkably fine pipe, is in quite a natural position, and shows an enlargement of the aboriginal art idea. Material being a dark slate or shale (obscurely veined Huronian slate).

Raven Pipe, Waterdown, Ont.—In the collection of George Allison, Esq., is a somewhat similar pipe to the Seagrave Raven Pipe, with a shorter and more rounded beak. On the neck and shoulders are a number of slots, some very distinct and others only slight depressions. The pipe was found on Mr. Robb's farm, 4th concession, Beverly Township, Wentworth County, near Troy Post Office (locality formerly occupied by Neutrals). It is

of dark blue, streaked, Huronian slate. The eyes are drilled. There are no signs of marks for feathers or feet. There is a transverse oblique cut running down from front to back, near tail,

Fig. 35. (Raven Pipe, Waterdown.)

on left side. Hole for suspension in frontal projection bored through from side to side. On the tip of the left shoulder is a red particle of stone (natural). The posture of these raven pipes bears a resemblance to some British Columbian Indian, painted, bird figures.

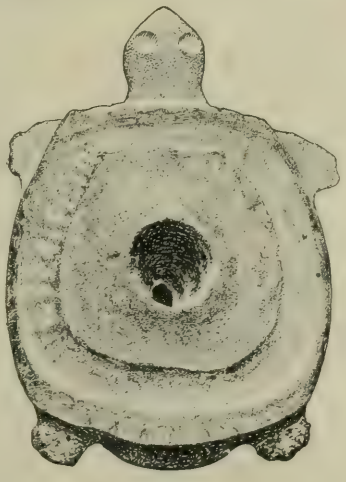


Fig. 36. (Turtle Pipe.)

Fig. 37. (Turtle Pipe.)

Turtle Pipe, Sunderland.—Fig. 14, p. 52, Report, 1896. Was found about 1881 on lot 11, con. 5, Brock Township; owned by

John Baker, and was given by finder to Dr. James McDermott, Sunderland. "That the turtle was held in such high estimation by Indians of the Huron-Iroquois race would warrant us in expecting to find numerous representations of the animal in those parts of the Province that were occupied by these people, but the truth is that specimens of this kind are extremely rare. It is made of a white or cream-colored limestone, and is nearly five inches in length by three and three-eighths in breadth. The proportions are very good, and the head is well formed. More labor has been expended on the lower than on the upper side of the specimen, but the latter is evidently in an unfinished condition, as are some other portions of the body. Marks of the tool used in chipping the groove that surrounds the margin on this side may still be seen, and the groove itself seems to be the only part of the work necessary to give the back its proper degree of curve, after which the whole surface would no doubt be rendered fully as smooth as a portion of the under side now is, as it was customary to finish every stone pipe. Another evidence of the incomplete state of this fine specimen is shown in the drillings that have been made into the body, before and behind each leg. It is plain that these borings have been done, just as any workman would do to-day, for the purpose of removing the bulk of the material between the upper and lower part of the test, and at the same time to bring out more freely the form and attachment of the legs. The holes have been produced by two drills, first, one of 3-16 of an inch in diameter has been used to a depth of about one-quarter of an inch, followed by another fully twice that size, with which the small holes have been deeply countersunk. The eyes are represented by slight borings made apparently by the smaller of the two drills already mentioned. No attempt has been made to form a tail, and the condition of the feet adds color to the belief that the specimen has been left in an unfinished state, for while the toes are roughly indicated on two extremities, the other two are perfectly plain.

"There is no evidence to warrant us in placing Brock township within the limits of the Huron nation, and yet it is not so far distant from what we call the "Huron country" as is the township of Manvers. Pipes, however, seem to have found their way to and from widely separated portions of the continent." This is Mr. Boyle's description in above referred to Report. The bowl is in the centre of the back, and is a rounded cavity 13-16 inch in diameter and 3-4 inch deep, reached by a stem-hole from the anus, 1 3-8 inches long and of 3-8 inch diameter, conically bored. The under part (the calipee or plastron) is partially smoothed, and has a wide shallow groove running "fore and aft." and has depressions marking the natural divisions of the shell. On the forward part of the carapace, or upper shell, are seven shallow notches in the edge of the shell and nine on the rear end of same. The toes on the left fore foot and right hind foot, are slightly indicated with five slight indentations in each case. The projection between the hind legs is probably meant for the tail folded close to the shell, and though the indentation thereon would represent the

serrations on the tail of a Snapping-Turtle (Chelydra serpentina), I think this is meant for the common mud-turtle. In the longitudinal groove underneath are tool-marks running the length of the groove, while a centre has been indicated, suggesting the use of the compasses. The bowl is not discolored, as it is sometimes by the use of tobacco. The head is extended and the feet partially projected, as if starting to walk. The specimen being very symmetrical—depth from back to front, 1 1-8 inches, head projects 1 3-16 inches, the mouth being well defined. Compare the outline of this pipe with turtle totem, Fig. 115, p. 49, Report 4, also engraved shell gorget, p. 56, Fig. 19, Report, 1896, and the turtle mortar, Fig. 1, stone effigies from south-west in Records of the Past, August, 1902, and with turtle pipe, Fig. 107, p. 48, Bulletin on Polished Stone Articles, New York State Museum, and Fig. 13, p. 38, Bureau of the Ethnology Report, 83-84, with turtle top of bowl, platform pipe.

Turtle Pipe, Ball Point Island, Lake Scugog, Durham County. —Report 96, p. 52, Mr. James L. Hughes. In this case, too, we can do no better than add a little to Mr. Boyle's description, as follows: "Although this specimen has suffered some damage to its limbs, it presents features that are absent from the Brock pipe, and certainly are intended to represent a different species of turtle. It is made of soapstone, a material much more easily worked than limestone, a fact that may, in some measure, account for the superior manner in which its details are brought out.

Originally, what now represents the upper part of the test would appear to have been almost circular, and as nearly as possible three inches in diameter (its present measurement from right to left), but 3-8 of an inch has been removed from the front edge of the test to show the protruding head, on which no eyes are represented. The upper side is quite smooth and almost black, presenting no features worthy of notice; but on the lower side much time and labor have been spent in an endeavor to produce life-like details. In both of our turtle pipes the stem-hole enters the bowl from behind, but as the workman in modelling this pipe has introduced a tail an inch in length, he has formed this appendage, turned artistically to one side, thus leaving the way clear for the insertion of a wooden stem. The maker, too, has aimed at giving the tail a natural appearance by means of a series of notches, but has not succeeded in placing them on the right side.

When closely examined a faintly scribed line may be seen extending from neck to tail on the under side of test. This line has no doubt been drawn by the workman to mark the middle of his material, and enable him to produce something symmetrical which he has managed fairly well. The presence of such a line is suggestive of European "laying out" rather than of such haphazard workmanship as we are prone to attribute to the Indian, and if found on stone pipes only might tend to confirm this suspicion, for it is certain that in numerous instances these are the work of white men, but in at least one case, viz., that of a woman's large semi-circular, slate knife, a tool that no white man was likely to make, there may still be traced the line followed by the artificer

in forming the curved edge of the blade." The long legs and serrated tail (six notches) of this specimen seem to especially indicate the snapping turtle. The seventeen much worn notches on rear edge of carapace may be a tally count. Depth from top to bottom 1 3-16 inches. The bowl is in the centre of back, 11-16 inch in diameter by 7-8 inch deep, and is conically drilled. The stem-hole is in the same position as in Sunderland Turtle pipe, is 3-8 inches in diameter, and is conically drilled.

Human Figure Pipe, Penetanguishene. Fig. 26, p. 32, Ont. Archaeological Report, 1891. Found a few miles south of Penetanguishene, material steatite, grey in color, shading to dark grey on back and front.

Mr. David Boyle, Superintendent of the Ontario Provincial Museum, says in reference to this pipe, "the maker of this pipe

Fig. 38. (Penetanguishene.)

had some pretensions to anatomical accuracy in his treatment of chin, wrist and ankles; he has been very careful to carve the feet intoed according to a well-known Indian characteristic, but with all this care in these and some other respects he has failed to produce thumbs and toes." Dimensions—Perpendicular height, 3 1-8 inches, depth from back to front 2 1-4, width across shoulders 1 3-16. The bowl is oval-shaped at top and conically bored to 1 3-8 inches in depth. The conically bored stem hole of 3-8 inches in diameter entering in front of pipe, below the knees, so that the pipe faces the smoker, which, according to Beauchamp, is an earlier characteristic. The facial features are better defined than is usual in this class of pipes. The surface of the pipe is polished and the backbone defined by a ridge or keel not noticed previously in other pipes. The low part or portion between the legs resembles a small animal turned upside down, and has well-

developed ears and faintly executed eyes looking upwards. A suspensory hole is also in this portion. The bonnet shaped hat that crowns the figure is one used to this day in the southwest part of France, and indicates that it was copied from some early Frenchman. The structural detail of the pipe is fairly well executed, more so than in other human figure pipes that have come under the writer's notice, and the different portions of the body are proportionately more exact. If placed on this base the pipe remains stationary, a feature not generally noticed in Ontario effigy pipes. The posture of the pipe is of a squatting person sitting on the haunches, supporting the head between the hands, with the elbows placed on the knees.

Human Figure Pipe, Brant. Fig. 7, p. 17, Report, 1892. From collection of Chief Smith, Brantford, and is attributed to the Neutrals or Attiwandarons, material yellow soapsone.

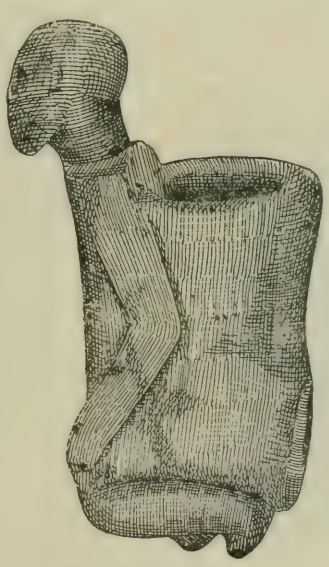


Fig. 39. (Brant County.)

Posture of pipe is of a person kneeling with a burden on the back, hands placed on the knees. The pipe shows much abrasion by wear, especially about the face, knees and orifice of the large stem hole, which is a wide, shallow, conically bored one of 13-16 in. deep and 3-4 in. wide, with a projecting lip orifice, having well-defined ring. This is an unusual feature.

The shoulders are cleanly cut and the feet are curved under the pipe. The small basal projection (broken) was suspensorily perforated. Dimensions—2 7-8 inches in height, distance from face to back 11-16 of an inch, width across shoulders 1 1-8 in, bowl is 3-4 inches in diameter and is conically bored to a depth of 1 1-8 inches. The pipe shows curved lines in arms and legs, but the face is flat, and the nose and mouth though indicated are worn level. The eyes are deep depressions and the stem hole enters through the buttocks.

Human Figure Pipe, Long Point, Fenelon tp. (Fig. 24, p. 22, Ontario Archaeological Report, 1897. Fig. 24, p. 21, Report, 1900.)

Material mottled grey soapstone. Found by Mr. Hoyle on his farm, Long Point, Fenelon township, North Victoria County. This is a ruder specimen of pipe sculpture though well polished. The details are not so well carried out as in the previous two examples. The legs were separated from the body, the left one below the knee being now broken off. The face is flat with only rude eyes and a mouth delineated. No markings represent hands or feet. Posture, squatting, with arms folded across knees. Suspension hole at base, which is flat and square, and divided into nine small squares by three sets of incised lines crossing each other on the underneath surface. Pipe remains upright if placed on its base. Dimensions—Height, 2 1-8 inches; depth, back to front, 1 3-8; width across shoulders, 1 1-16. Stem hole conically

Fig. 41.

Fig. 42.

(Fenelon Township Pipe.)

bored in back 1-4 inch in diameter and 1-2 in. deep. Bowl being more of an excavation than a boring, showing tool-marks as of "gouging" and is a rounded cavity 1 11-16 by 5-8 inches deep.

Human Figure Pipe, Holland Landing. This pipe was found at Holland Landing by a man in the employment of Capt. Jaques, now of Briercrest farm, Drinkwater, Northwest Territory, in a letter from whom, bearing date of the 27th of June, 1902, he states that he has forgotten the name of the man who found the pipe, and the year of the finding,but that it was found in the water at a little distance from the shore. The present owner does not know any particulars about it. The specimen has been called the "skeleton pipe" on account of the legs and arms being separated from body. Material greenish-grey soapstone. Surface well polished, and as in the Long Point pipe the hands and feet are not brought out, and the facial features are very rudely formed ; the eyes being saucer-like depressions and the nose and mouth defined

by lines. The face is flat. The stem-hole is in the middle of the back and is surrounded by a raised orifice. The posture is a sitting one on a projecting base, with arms folded across the knees. The upper part of the arms is separated from the body, and the upper part of each thigh is continued in a ridge around the bowl to the lower part of the stem hole. Dimensions—3 1-4 inches high, width across shoulders 1 1-2 inches, depth from back to front 1 3-4 inches.

Other Human Figure Pipes. An extract from The News Letter, Orillia, appearing in The Lindsay Post, January 12th, 1894, states that a human figure pipe was picked up on a farm at Price's Corners, near Orillia. This was a stone pipe representing a squaw carrying a round basket on her back. The basket was used as the bowl of the pipe. The pipe was found while excavating. No trace of this pipe can now be obtained.

Mr. S. Cunningham of Victoria Road had until recently in his possession another human-figure pipe of yellow soapstone. This one was of nearly the same size and material as the Brant pipe, and came from Milton, Ontario. The posture was similar to Long Point pipe, but the head was unfortunately broken off, and the pipe was further mutilated by some added markings. This pipe mysteriously disappeared several years ago.

Mr. Boyle says that "the crouched or seated position was the one usually chosen when the human figure was used as a pattern in pipe making, no doubt, partly because of the compressedness and partly because the bowl could be more easily shaped from the rounded shoulders." The position of limbs varies but little from the streotyped clay-pipe patterns.

The writer would be much pleased to receive photographs or drawings, with full descriptions, of effigy pipes from readers who have specimens of this kind in their possession, for the purpose of continuing his notes in future reports.

NOTES ON NORTH VICTORIA, ONTARIO.

By George E. Laidlaw.

Embankment. In company with A. F. Hunter of Barrie, a visit was made to the embankment site 26, lot w. 1-2 23, con. 2. a section was cut through it where it seemed more prominent and basal humus was clearly defined on original surface, which inclined upwards thus proving clearly the artificiality of its origin. It is suggested that the embankment was used in connection with game-drives.

New Sites. No. 33 is a small transient site on the east shore of Long Point, South Bay, Balsam Lake, on lot 29, con. 3, owned by Mr. F. Staples, who found a skeleton here ten years ago. The site is directly on the shore and opposite site No. — McArthurs on the east side of the bay. The ash beds are small and shallow, disclosing pottery and flint fragments having a tendency of later Algonkin occupation.

Other sites reported but not visited are : One on lot 13, con. 10, Eldon, which yields ordinary relics, and another on lot 9, con. 8, Fenelon, Ball Point, Sturgeon Lake, John Cuppins, owner. This place is three miles from Cameron Post Office, and produced the usual relics, amongst them being a copper spearhead. The site seems to have two long rows of ash beds. A few skeletons have been found here, also a knife bearing the date 1772, but which was not found on site. There are other sites in the vicinity, notably on Strowds, lot 16, con. 6, Fenelon, and at Hewies and Cullis, adjoining farms, some two miles north of Cameron Post Office. A few have been reported from the south end of Eldon, and all these will bear investigation next season: No. 33, Staple's, lot 29, con. 3, Fenelon, east side Long Point, Balsam Lake ; No. 34, lot 13, con. 10, Eldon. No. 35, Ball Point, lot 9, con. 8, Fenelon Township on Sturgeon Lake.

The country south of Balsam, Cameron and Sturgeon Lakes seems to have supported a large aboriginal population, as the soil is good and surface of the country well suited for location of villages and aboriginal cultivation, being undulating and well watered with streams. The country to the north of these lakes or the main internal waterway is a sterile mountainous tract of Laurentian formation. The bulk of the village sites seems to be (as far as they are known to date) immediately on the south side of lakes extending along the chain to the east. Then we hear occasionally of isolated villages, and an odd group here and there as far as S. Simcoe to the west, and extending from the southern edge of granite regions away to the south of the county where it touches the hilly country in the vicinity of Peterboro.

There are sites reported from Verulam township, south of Sturgeon Lake, which have not been examined this year, on account of lack of time and general rough weather. The principal ones being on the 5th concession, Robert Mitchell's place, near Dunsford Post Office, where large quantities of pottery and relics are picked up. Also in the vicinity of the Scotch line, where are also quantities of relics, and at Cambray south part of Fenelon township, are several unrecorded sites. One being on the lot occupied by the manse, which produced relics showing European contact and had a graveyard in immediate vicinity. A Mr. Wilkinson owned the lot. Graveyards and ash beds are reported from this vicinity especially at several places along the Laurence Creek. A mortar on a large boulder was noticed on the east half of lot 23, con. 2, Fenelon, adjoining the embankment site.

ARCHÆOLOGY OF BLENHEIM TOWNSHIP.

By W. J. Wintemberg.

Location and Area.—Blenheim lies east of Blandford township and is the most easterly portion of the county of Oxford. On the north it is bordered by Wilmot township; on the east by North and South Dumfries, and on the south by Burford. It is twelve and one-half miles from north to south, and ten from east to west.

The topographical features of the township are generally very regular, though along its principal stream a few rough features are encountered; the banks in some places, especially

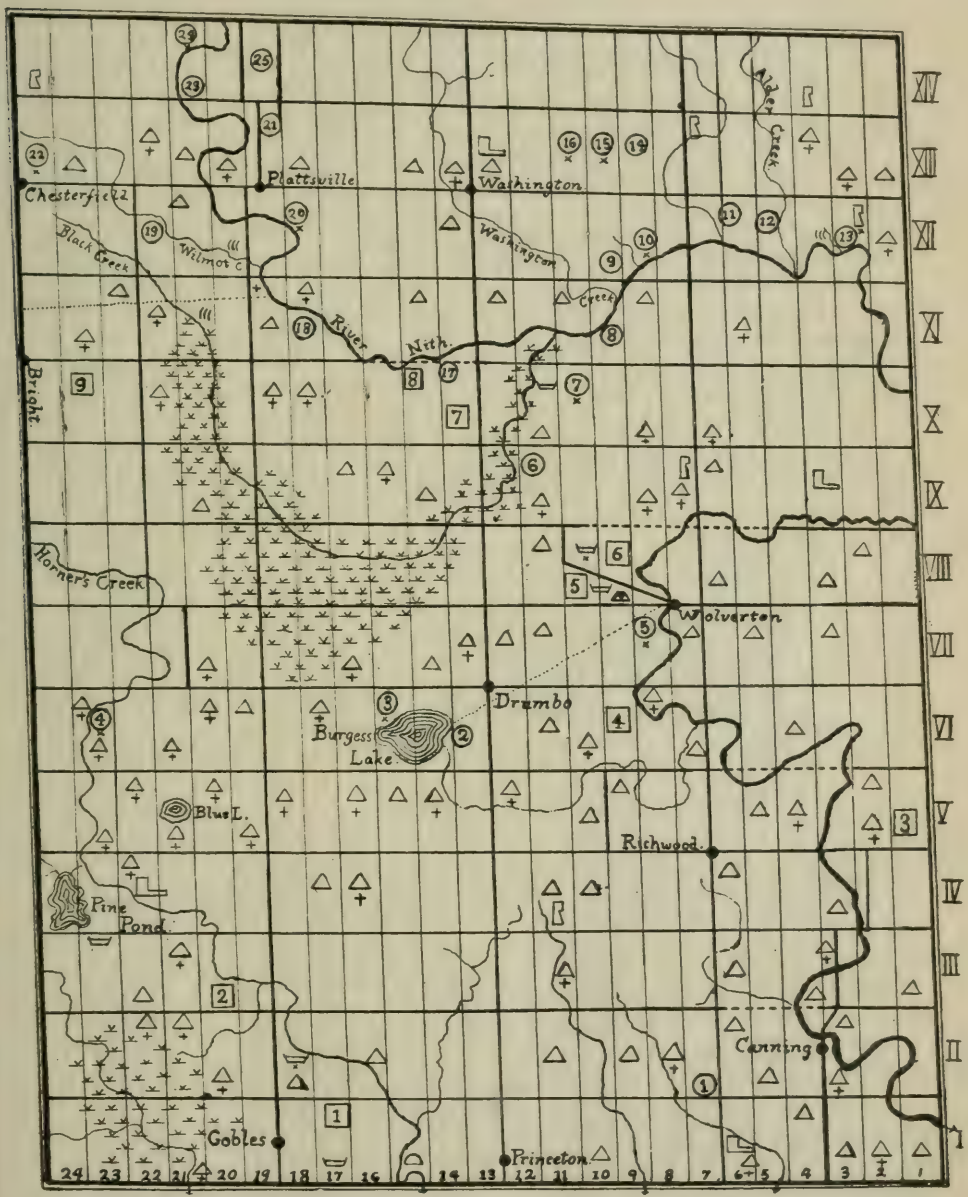


Fig. 43. Archæological Map of Blenheim Township. (Drawn by W. J. Wintemberg.)

in the southeastern section, rising to the dignity of decided cliffs, and where there is much sandy soil the regular undulations give place to hills and ridges.

The southwestern part of the township consists principally of light, sandy soil. The same may be said of the southeastern and middle portions. Below Drumbo, on each side of the middle town line, there is a large flat tract of alluvial land, consisting chiefly of a heavy clay loam. Large areas in the township are covered with marshes. The two largest are shown on the map.

Creeks, Rivers, and Lakes.—A glance at the map will show that the township is well watered. The Nith winds through the northern portion and enters North Dumfries near the village of Ayr. It re-enters Blenheim between the ninth and tenth concessions, and after pursuing a tortuous course through the southeastern section, flows to its confluence with the Grand River at Paris. Horner's creek, another stream of considerable size, flows through the southwestern corner. Besides these, many other smaller streams traverse diffrent parts of the township. Burgess Lake, before it was drained, was several acres in extent, and Pine Pond covers about twenty-five acres. Another smaller lake, called Blue Lake, lies between the fifth and sixth concessions.

The Fauna.—Game of all kinds was abundant in this part of the country when it was first settled, and it must have been more plentiful in prehistoric times. Father Daillon, when he visited the Neutrals, in 1626, remarked the abundance of deer, moose(?), beaver, wild cats, squirrels, and fish. The ash beds of every Neutral village site yield bones of nearly all mammals, birds and reptiles found in this part of Ontario, and it is apparent from this fact that none of our vertebrate animals were excluded from the aboriginal menu. All the principal streams are well stocked with fish. Pike are caught in Horner's Creek, and catfish, suckers, trout, several species of chub and a few other varieties of less economic importance are found in the lakes and streams of the township. Besides these, the molluska furnished food.

The Flora.—Vegetable growth, judging by indications of the present day, appears to have been luxuriant all over the township. The arborescent vegetation was of much economic importance to the aborigines. Besides many other uses, which are too well known to mention here, the larger trees, especially the pine and other conifers afforded them protection against the piercing winds of winter. All the Neutral villages, which I have examined, are situated where the pine flourished, and I have yet to report one in a locality where there were only deciduous woods. Other forms of vegetable life are abundant, and many of these, perhaps, were used as food, or took an important place in the primitive materia medica.

Pre-Neutral Sites.—In an article on "Indian village-sites in Oxford and Waterloo" in the Archaeological Report for 1900, I endeavored to show that there were evidences of two distinct periods of aboriginal occupancy in this part of the country. No evidence has since appeared which would make me abandon this view. Recent research, however, has invalidated some of the statements made in that article. For instance, I find that the tablets or gorgets are not exclusively a pre-Neutral product, they

being found on most Neutral village-sites. But this fact will scarcely show that the two classes of village-sites were occupied contemporaneously. While gorgets may be found on Neutral sites, bird and bar amulets, banner stones, and stone tubes are conspicuously absent.

I will begin in the southwest corner of the township. A circle is used to indicate the pre-Neutral camps on the map. In many cases there is only a single camp on one place, where more than one occurr, a cross (x) is placed below.

No. 1.—A single camp on the south half of lot 7, con. 2. This is near a small pool. On the north half of this lot, many arrowheads and a few celts and adzes are found.

No. 2.—A single camp on the east shore of Burgess Lake. The owner of the farm (south half lot 13, con. 6), found many arrowheads, celts, adzes, four grooved axes, several gorgets and pendants, boat-shaped amulet, broken bird amulet, and many pottery fragments. Some of these pottery fragments were decorated with a stamp. One stamp, probably a thin piece of wood carved on the end like printers' type, produced the "herring bone" or meander pattern. Another kind of ornamentation seems to have been made with the rocking or roulette stamp. Several sherds were decorated like the ceramic ware of the ancient Britons, with twisted cords or plaited strips of grass or bark.

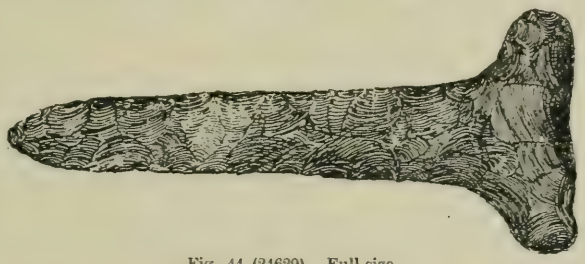


Fig. 44 (24629). Full size.

No. 3.—Three single camps, about a quarter of a mile apart, on north half of lot 15, con. 6. These are north and northwest of the lake. The owner formerly found gorgets, celts, and arrowheads. Arrowheads are found on adjoining farms.

No. 4.—A camp consisting of several black spots on the north half of lot 22, con. 6. These spots are on the south bank of Horner's Creek. Arrowheads, a few celts, and a pendant made from a broken gorget were found here.

No. 5.—Two spots on the high bank of the Nith on lot 8, con. 7, have yielded some gorgets, celts and arrowheads.

No. 6.—A single camp in a field on James Harmer's farm, north half of lot 11, con. 9. The spot is about one hundred feet south of the 10th line. Here were found a few arrowpoints, chert implement (24324), knife (24325), celts, and two gorgets or pendants (24496, 24497), with a single terminal perforation. On the opposite farm, south half of lot 11, con. 10, the owner found arrowheads, celts and other stone relics.

No. 7.—On the old Baxter farm (north half of lot 10, con. 10) there are several black spots, on which are found burnt stones. Many arrowheads, a number of drills, and two round gorgets, with a median perforation, were found here. One drill (Fig. 44) is a very fine specimen, and is one of the most perfect drills ever found in the section.

No. 8.—An isolated single camp occurs on the south half of lot 9, con. 11, on the south bank of the Nith. A bar amulet, broken gorget, drills, celts, and arrowheads were found on this place.

No. 9.—Another single camp is on the south-east part of lot 9, con. 12. It is on a high bank near the Nith. Mr. Bass, the owner, finds arrowheads on this farm. Celts and adzes were found in former years.

No. 10.—The farm being north half of lot 8, con. 12, was described in the Archaeological Report for 1899. In a field on the adjoining farm (lot 7), several formerly inhabited spots are found along the bank of the river. Pottery fragments of a very crude kind were found near those on lot 8. A few arrow-points, an unfinished celt, part of an unfinished gorget, and a gorget with one hole, were also picked up.

No. 11.—A single camp on lot 6, con. 12. No finds reported.

No. 12.—A single camp on David Clemens' farm, lot 5, con. 12, near the River Nith. Arrowheads are met with.

No. 13.—A camp on the south part of north half of lot 2, con. 12. Numerous arrowheads, celts, a few drills and gorgets have been collected here. In the report for 1899 I referred to a camp (No. 6) on Mr. Benj. Schlichter's farm, but since then, after a thorough examination of the place, I have discovered no traces of an encampment, although there are many dark spots, which, however, appear to have been made when burning stumps. A few years ago, when the field was first ploughed, two small pottery sherds were found by a friend, and these are now in my collection (24222-23).

No. 14.—Single camp on lot 8, con. 13. A son of the former owner found a number of arrowheads and the unfinished banner stone (22511) described in last year's report (p. 8, Fig. 1).

No. 15.—On the north half of lot 9, con. 13, are five large camps. One is north of the dwelling-house, three others are on top of a ridge southwest of the house, and another is on the summit of a high knoll, on the south side of the farm. There are also two on the south half of this lot. Arrowheads and celts have been found on the north half, and this spring a gorget was ploughed up near one of the largest spots, but its value not being appreciated by the finder it was cast aside as worthless. On this spot I found an oval syenite pebble, smooth on the flat sides, with peripheral abrasions, indicating a possible use as a hammer-stone. A small stream formerly flowed through this farm.

No. 16.—On lot 10, con. 13. One of the spots is in a field on the east side of the farm. The other is on the north side of the

woods. Both are on high ground. There is another in an adjoining field, north half of lot 11. This is situated on low ground. Arrowheads and a celt were once found on this farm. A small rivulet formerly flowed through this section.

No. 17.—A single camp on the north half of lot 13, con. 10. This is near a small spring and on low ground. A few arrowheads and a celt were collected.

No. 18.—On the south half of lot 17, con. 11. The owner of the place finds celts and arrowheads.

No. 19.—There is a single camp on the south half of lot 21, con. 12, near the south bank of Wilmot creek. Arrowheads are found.

No. 20.—Three camps are found on lot 17, con. 12. These are near the bank of the Nith. A collector found here a black slate pendant, rubbing stone (23968), and some arrowpoints. A stone shaped like a bar amulet, with a groove extending along the flat or under side, was also found.

No. 21.—A single camp on the north half of lot 18, con. 13. Two gorgets were found years ago. One is a very beautiful specimen, being made of porphyritic diabase. Arrowheads are sometimes met with.

No. 22.—Five or six black spots, with numerous stones cracked by fire, are found on lot 14, con. 13. These are on the south bank of Wilmot Creek. There is another on the north bank. Arrowheads were very numerous years ago. A nice banner stone, shaped like a hammer, was found.

No. 23.—There is an isolated camp on the high bank of the Nith, lot 20, con. 14. No relics of any kind reported, although, I have no doubt, they exist.

No. 24.—Three single camps on the north half of lot 21, con. 14. One on the extreme south of the farm is on a high bank, about seventy or eighty feet above the bed of the river. The former owner found gorgets, stone axes (one grooved), arrowheads and spear points. An unfinished banner stone, the central hole not being completed, was found here.

No. 25.—A single camp occurs in a field on the north half of lot 18, con. 14. It is on a high bank not far from the river. No finds of any kind reported.

A small fragment of pottery, of the same kind as that from No. 10 was picked up on the south half of lot 19, con. 12. There are no camp sites on this place, but the presence of the pottery shows that it was at least occupied temporarily.

Several fragments of clay vessels were found on the south half of lot 20, con. 11. This shows that there was a temporary camp here. Black Creek flows through the farm.

Neutral Village-sites.—No. 1.—This site is about three-quarters of a mile west of Horner's Creek, on the north half of lot 17, con. 1. A swamp lies to the north of this site, which is a very large one, covering several acres. Many relics were found in former years. The bulk of the material is in a private collection. Very few relics are found now. Arrowheads and other stone relics are picked up on adjoining farms.

No. 2.—Is a large site, consisting of about sixteen ashbeds, on the old Harper place, lot 20, con. 3. It is situated on the south bank of Horner's Creek. Mr. Isaac Harper informs me that when the field was first ploughed, about thirty years ago, large pottery fragments, bone and stone relics, and clay pipes, were discovered. On one occasion a very fine clay pipe was found, but the finder, instead of preserving it, destroyed it. I found a number of arrowheads, two drills, several pottery fragments, bone awl and bead, and part of a Huronian slate gorget. I also discovered a human jaw-bone, which belonged to an extremely aged individual, every tooth being gone and the alveolæ closed.

No. 3.—On south half of lot 1, con. 5. This site is near a spring, and was well sheltered by the surrounding hills. The field has been under cultivation for the last fifty years. The usual relics are found here. Most of the material was secured by a private collector.

No. 4.—Is a large village-site on the north-east part of lot 9, con. 6. One ashbed is on the south half of lot 9. There were several lakelets, or ponds, now nearly all marshes, near this site, and these no doubt attracted the aborigines to the spot. The usual relics, such as pottery fragments, bone awls, arrowheads, etc., are met with. Much material was discovered about fifty or sixty years ago, when it was first ploughed, but in those "good old days" no one was interested enough to preserve the relics.

No. 5.—Was described in the report for 1899. It is on the south half of lot 10, con. 8.

No. 6.—Is another site east of No. 5, on lot 8, con. 8. It lies south of the Wolverton cemetery, and on the west bank of the Nith. There are about nineteen ashbeds. The usual relics have been discovered. There are several ashbeds on the south side of the road. One large kitchen-midden was found when this field was first ploughed.

No. 7.—On the south half of lot 13, con. 10. This site was described in the Archaeological Report for 1899.

No. 8.—Is on lot 14, con. 10, not far from the river. A number of relics were found. On one occasion five or six celts and several arrowheads were found en cache on a high bank west of the site.

No. 9.—On the north half of lot 23, con. 10. This site was fully referred to in the report for 1899, and needs no further description here.

Burial Places.—There are very few burial places in connection with Neutral village-sites in Blenheim township. There seems to have been a burial ground between village-sites No. 5 and 6, for several skeletons were discovered (see 1899 Report, p. p. 85-86). A skeleton was found near one of the ashbeds on No. 6. Frank Wanner, who lives near Wolverton, told me that about thirty years ago an Indian skull was found where the Methodist Church now stands in the village of Wolverton. They had pulled a stump and found the cranium firmly wedged in between the roots. It was perfect. A man from New Brunswick got it.

William A. Affleck, while digging a ditch through his farm (south half of lot 17, con. 1), found the skull of a child, but supposing it to be that of a European, he re-buried it. It was about one and one-half feet below the surface. The field was covered with pine stumps, and no doubt the skull was at one time covered by one of these. It is likely that the skull was prehistoric, and that of an individual inhabiting village-site No. 1.

I am informed by John E. Hewitt, of Drumbo, that about eighteen years ago he found three skeletons under a pine stump on lot 18, con. 2. This stump stood on the bank of Horner's Creek. Nothing was found with the skeletons, and they were re-buried. Mrs. H. Buck told me that one of the skulls was brought to the farmhouse, but she does not know what became of it. This farm is not far from village-site No. 1.

About thirteen years ago, while doing statute labor on the 4th concession, near Pine Pond, the workmen found the skeleton of an Indian. The remains had been buried in a sandbank about two feet below the surface. Mr. Thomas Ware, of Plattsville, who gave me this information, secured the skeleton and sold it to a local physician, but what subsequently became of it is not known. The width of the pelvis indicated that the remains were those of a female. The teeth were remarkably white and well preserved.

About thirteen or fourteen years ago a skeleton was found in a sand-bank on lot 10, con. 10. The remains were re-buried. No other relics were found with the skeleton.

F. B. Martin, of Canning, told me of a place on lot 5, con. 3, which was believed to have been a burial place. When the land was first cleared a large number of long hollows were to be seen. No skeletons were discovered when the ground was ploughed, and no investigation was ever made, so it is hard to say whether this really was a burial ground.

Mound.—Charles Milton, Drumbo, told me of a mound on the south half of lot 15, con. 1, on the Horner's Creek flats. He said that when he was a boy, about fifty years ago, he and several other lads had their swimming-place near this mound, and on several occasions dug into it, and once found a small copper kettle and some coarse pottery sherds. The mound was then about twenty feet long, fourteen wide, and nine or ten feet high. I saw the mound several days before I met Mr. Milton, but I regarded it then as an interglacial freak, or the remains of Thomas Horner's mill-dam. During the Upper Canada Rebellion, or some time after, a large number of Indians camped on the flats between the first and second concessions, and it is possible that they used the mound as a burial place.

If I get time, and am granted permission from the owner, I shall ascertain by digging, whether the mound is of artificial or natural origin.

Surface Finds.—Arrowheads are found in nearly every part of the township. Considering their commonness, I did not think it necessary to indicate on the map where they occur, and it is only when found with other relics, such as celts and adzes, that I have done so. Where ceremonial implements are found with

axes and arrowheads, a cross is placed below the sign which indicates "surface finds."

It will be observed that surface finds, ceremonial implements especially, are more numerous near the lakes and larger streams, and near the pre-Neutral camps.

Of the relative frequency of ceremonial objects, I may say that I find gorgets and pendants are most frequently discovered; banner stones and bird and bar amulets come next, and then stone tubes, two of the latter class having been reported.

Four stone pipes have been found in different parts of Blenheim. One was found on lot 6, con. 1, about ten years ago. It is of a type (Fig. 45) not figured by McGuire in his monograph on "Pipes and Smoking Customs of the American Aborigines." It is made of quartz or a species of felspathic stone. The bowl is three and three-fourths inches in height, and the stem is about two inches long. A piece of the stem is broken off. The stem-hole is nearly three-eighths of an inch in diameter, and it is evident that the pipe was provided with a wooden stem. A collar surrounds

Fig. 45. (Three-quarter dia.)

the upper part of the bowl. The outside surface is smoothly finished. This pipe should be secured by the Museum before it becomes the property of some local collector.

A pipe of nearly the same shape was found on lot 3, con 9. It was made of slate, and had the figure of a canoe cut in on one side of the bowl. This pipe was lost, or stolen, several years ago.

A stone pipe, or whatever else it may have been, was found on the south half of lot 12, con. 13. It is now in the Provincial Museum, and was described by Mr. Boyle in the Archaeological Report for 1894-95 (p.p. 68-69).

Another pipe was found on lot 22, con. 4. The bowl of this pipe was square, each side being about an inch and one-half wide. The stem was about six inches long. It was made of red stone; perhaps catlinite. It is not known what became of this specimen.

Besides the copper awls found on village-site No. 5, only one other copper implement was discovered in the township, and this

is a copper spear or knife, picked up on lot 19, con. 6. It is a well-preserved specimen, six inches long, one and one-eighth wide at the widest part, and three-fourths at the base. It is elliptical in cross-section, and a little more than an eighth of an inch thick. In shape it resembles Fig. 248, Boyle's "Notes on Primitive Man in Ontario." Arrowheads, but no other stone relics, occur on this farm.

John McCrow found a stone tube on his father's farm, north half of lot 11, con. 3. Fortunately, I was able to secure this specimen for my collection in the Provincial Museum. Mr. McCrow, sr., found arrowheads and celts years ago.

Among other relics, such as celts and arrowheads, found on north half of lot 16, con. 4, was found a broken butterfly banner stone. A hole was afterwards drilled through each wing, evidently for the purpose of binding the broken parts together.

Two peculiar gorgets were found on the south half of lots 3 and 4, con. 5. I have a cast of one in my collection (No. 24476). The other is of a triangular shape and has one perforation. Teeth are cut into the lower edge at an angle. For a good illustration of these specimens see "Records of the Past" (Washington, D.C.) for May, 1902, pages 153, 155, and Figs. 12 and 15.

On lot 22, con. 3, arrowheads and celts are collected. A small hatchet-like banner stone and a large chert axe were picked up on the north half of lot 22, con. 2.

Numerous arrowheads and a small banner stone were found on lot 21, con. 2.

On the north half of lots 16 and 17, 5th con., arrowheads, celts and gorgets occur. A very fine drill has also been collected. One gorget from this lot has three holes, and around the middle one a circle, about an inch in diameter, was cut. This circle is almost as round as if it had been done with a pair of compasses. The edges of the gorget have been sharpened. It is of a rectangular shape. Here, too, was found a piece of polished stone, which may have been the head of a snake or lizard effigy.

The half of a very nice crescent-shaped banner stone was found on the late Henry Muma's farm, lot 13, con. 7.

On lot 7, con. 9, was found a gorget, of which No. 24475 in my collection is a cast. It is made of a reddish colored slate, banded with veins of a micaceous mineral. One of the sides has a groove extending from one end to the other. Arrowheads and celts are frequently gathered on this farm.

Arrowheads, knives, celts, adzes, a stone pestle over one foot in length, gorgets, and a broken banner stone were found on lot 6, con. 10.

Several gorgets (one of which is in the Museum), arrowheads, celts and a pestle were found on the old McEwen farm, lot 8, con. 10, by the tenant. A small mortar was once ploughed up, which was consigned to a stone heap, and cannot now be found. A broken bar amulet was also discovered. Holes were drilled at the fractured ends, two being through one end. Below each of these two holes there is a notch, and the presence of this feature shows that the amulet was bound to some other object, the notches making the attachment more secure.

On the south half of lot 23, con. 11, was found a very nicely polished stone tube about seven inches long, which was afterwards lost. Gorgets, adzes, axes, spearheads, arrowheads, and knives were numerous. At the present day many arrowheads are still picked up. Nos. 24490-91 are from this farm. No. 24491 is of a very peculiar shape, and is of a type which Prof. Thomas Wilson styles class B. (shouldered, but not barbed) in his classification of arrowpoints, spearheads and knives.

A bird amulet was found on the Bullock farm, north half of lot 18, con. 11, about sixty years ago. It is a very fine specimen, and is now in the possession of M. Wilkinson, Woodstock.

A bird amulet was found in a garden on lot 19, con. 13. It resembles Fig. 21 in Prof. W. K. Moorehead's "Bird Stone Ceremonial." It is now in a private collection.

A bird amulet (24501), part of a pick-like banner stone (24296), part of an unfinished gorget (24498), wing of an unfinished banner stone (24363), and a number of arrowheads were found on the south half of lot 13, con. 13, not many years ago.

Fig. 46. (One-third size.)

A few years ago I found a mortar on the north half of lot 22, con. 9, near the Grand Trunk Railway.

Several gouges have been found throughout the township. One was found on the Markle farm, south half of lot 10, con. 6. It is hollowed from end to end. Mr. Isaac Hewitt found a specimen made of syenite (24366) on his farm, south half of lot 19, con. 12. This is not hollowed out so much as some found in other parts of the Province. There is another in a collection at Drumbo, which is of the same material as the above specimen. It was found in Blenheim.

Post-European Relics.—Iron relics brought in by the early French and later British traders are not very numerous.

Four iron tomahawks of early French pattern were found on the south part of north half of lot 2, con. 12. The proximity of these to camp site No. 13 would almost lead one to think that it was of Post-European date, but the fact that ceremonial implements are found proves that it is prehistoric. An iron knife was ploughed up in a new piece of ground on the next farm, lot 1.

Tomahawks of the same shape were found on the north half of lot 7, con. 9; lot 6, con. 13; and lot 3, con. 14. Another of an entirely different type (24233) was found on the south half of lot 24, con. 14, and was presented to me by Mr. James Knox, the finder.

Henry Burgess, of Drumbo, has one in his collection which was found on the south half of lot 11, con. 4. This axe (Fig. 46) has a sharp curved point on one end, and must have been a very effective weapon. Early in the last century, some time after or before the war of 1812, a man by the name of Lester was hunting in the woods on the Murray farm. He shot a deer, and was about to take possession of it, when an Indian appeared on the scene and laid claim to the carcase, because he had fired the first shot. An altercation ensued, and Lester shot and killed the Indian. He buried him and hid the gun, knife and tomahawk in a hollow tree, where they were discovered many years ago. This tomahawk might be the one that belonged to that Indian.

An iron spearhead was found on the Pinkham farm, east of Murray's.

Indian Trails.—I have heard of only two trails in the township, and these were used in the early part of the last century. One of them passed over the high ground from Burgess Lake to the River Nith. The course as indicated on the map is approximately correct. No definite information was obtainable as to the point where the trail terminated. William Burgess, of Princeton, who is over ninety years old, says it terminated near Wolverton. I think this statement is correct. This trail was still used by Indians over eighty years ago.

Richard Hewitt, of Bright, told me of a trail which extended from the Nith to the banks of Horner's Creek, in Blandford Township. It crossed his father's farm, and passed through the country about midway between the two concessions. This trail was used by Iroquois Indians over fifty years ago.

Short trails no doubt connected all the Neutral village sites; but traces of these, of course, would become obliterated soon after the Neutrals were exterminated by the Iroquois.

Conclusion.—The work committed to me has been done as thoroughly as possible, but one cannot hope to accomplish much in a single season. Nevertheless, I am sure that few, if any, new village-sites can be added to my list, unless in some locality which is at present uncultivated. A canvass was made of nearly every farm in the township, and by this method not one village-site, unless the farmer himself is ignorant of its existence, would be left unrecorded.

There are many now who, though often actuated by mercenary motives, preserve such relics, and there are some collectors who offer fabulous prices for everything that is curious, and the finders, knowing full well that some collector, with more money than brains, will pay it, usually demand an exorbitant price for their specimens, and this frequently results in a scientifically valuable relic finding its way into some obscure collection, where students will never see it, or else it is sold to some dealer in a foreign country.

This shows how important it is that the Department should make every effort to secure valuable material and information before it is too late.

The map, copied from Thomas Shenstone's map of Oxford County (1852), is drawn to scale (130 chains to an inch). Many additions and corrections had to be made.

ATTIWANDARON OR NEUTRAL VILLAGE-SITES IN BRANT COUNTY.

By F. W. Waugh.

Geological Outline: The Townships of Brantford and Onondaga, in Brant County, lie almost entirely within a belt or strip, of irregular width, which passes through the Niagara Peninsula, and then extends northwest to the shore of Lake Huron above Goderich. This strip is marked by exposures of the Onondaga formation, one of the Silurian group. A great depth of drift conceals the rock formation throughout the greater part of the two townships. To the east of Fairchild's Creek the upper layers of the drift consist very largely of clay, interspersed with areas of fine reddish sand. It is usually on hills, or elevated land covered with soil of the latter kind, that we find the remains of the rude villages and ossuaries of the Attiwandarons.

The fields on both sides of Fairchild's Creek are eaten in many places into hills and gullies by numerous streamlets and creeks, some of which flow only in the spring. Fairchild's Creek, for some reason, does not seem to have been a favorite location for villages. Here they would have been assured of a good supply of water, as well as fish and other game. It may be that it was preferable to be back some distance from the creek, which formed a too convenient highway for war parties of hostile tribes. The most of the sites so far discovered in this part of the township were situated along the banks of a slow, muddy stream, which, with its numerous branches, forms an almost endless maze. This stream lies about four miles to the east of Fairchild's Creek, and in its general direction runs nearly parallel with it. It empties into the Grand River below the village of Middleport, opposite the Six Nation Reserve. It is now considered too small to possess a name, but, judging from the wide valleys and alluvial flats in many places, it was in former times a large stream, frequented by beaver and other game. In the following notes reference will be made to it as Mud Creek. Its course on the accompanying map has in part been verified by the writer's personal inspection.

Village-sites: (1) Mitchell's formerly Seeley's), lot 9, 1st range, S.H.R.* Over forty years ago two boys, while unearthing a woodchuck on the back of a farm then occupied by a Mr. Seeley, discovered an ossuary or bone-pit. After making allowance for exag-

*N. H. R. and S. H. R.—Abbreviations for north of the Hamilton Road and south of the Hamilton Road.

geration and other inaccuracies, the evidence goes to show the former existence of a large ossuary, containing the remains of many

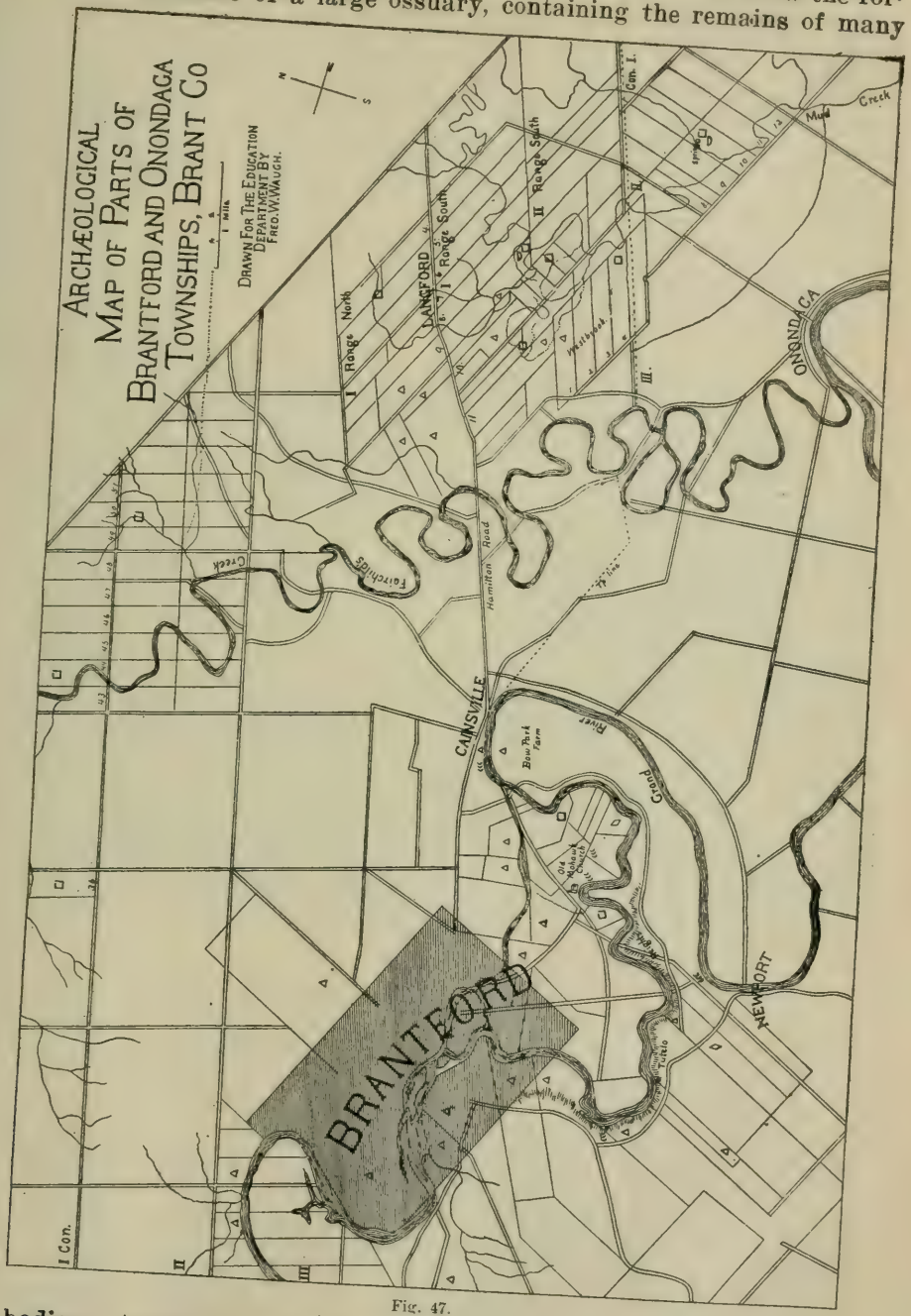


Fig. 47.

bodies. A reliable estimate of the number is difficult to arrive at after this lapse of time, but, according to several eye witnesses, hundreds of skeletons were unearthed. A great

rush of ignorant curiosity-seekers took place to this hitherto secluded spot when the find became generally known, "then there was hurrying to and fro, and rushing in hot haste." In fact we could hardly realize how the discovery was distorted and magnified in the rural mind if we did not have examples of the same thing to-day. Not long since an ossuary was discovered near Campden, Ontario, and instead of the excavations being placed under the superintendence of an experienced archaeologist, everything of interest was removed with avaricious and hasty hands.

Immediately following the discovery of the ossuary, the whole hill-top, for seven or eight acres around, was found to be rich in Indian relics. (Fig. 48.) Little or nothing, of course, concerning

Fig. 48.

the real nature of the find was known. Of what interest was it to the ignoramus, who revelled in material of almost priceless value to the scholar, to gather data to enable us to determine who constructed these works ?

On the site of the ossuary, the writer has seen numerous skulls and other bones exhumed.

Both village-site and ossuary occupy the top of a peninsula-like elevation extending westward. One-half of this is still in bush and pasture, but numerous visits have disclosed the location of all the principal ashbeds and kitchen-dumps. The land here was formerly covered by a heavy growth of red pine, mixed with beeches, maples and other hardwoods. The cultivated part shows about half a dozen ashbeds. Two of these are of considerable length, agreeing with our knowledge of Indian custom in the

* In the illustration above, the ash-beds in the field are marked *A*, and the site of the ossuary *O*.

building of elongated cabins, or, as they are called for this reason, longhouses. The investigation of an ashbed in the bush showed the dimensions to be about twenty-one feet in length by four or five in width. In this deposit an interesting rubbing stone Fig. 49 (23684) was found; the material of this was fine, light-colored sandstone. A collector known to the writer discovered a single burial in the bush; in this grave were found a carved pipe of nearly white stone, some arrowheads, and a knife of flint, showing evidences of attachment to a handle. Other single burials are reported to have been found, a further proof that the burials were made subsequent to the desertion of the village as a place of residence. We are led to the same conclusion regarding the ossuary. From our knowledge of Indian character and disposition, we may be sure that even though the bones of the departed might be tolerated until the "feast of the dead," an ossuary would not be a desirable adjunct to a village, peopling the nightly shadows already overburdened with spirits.

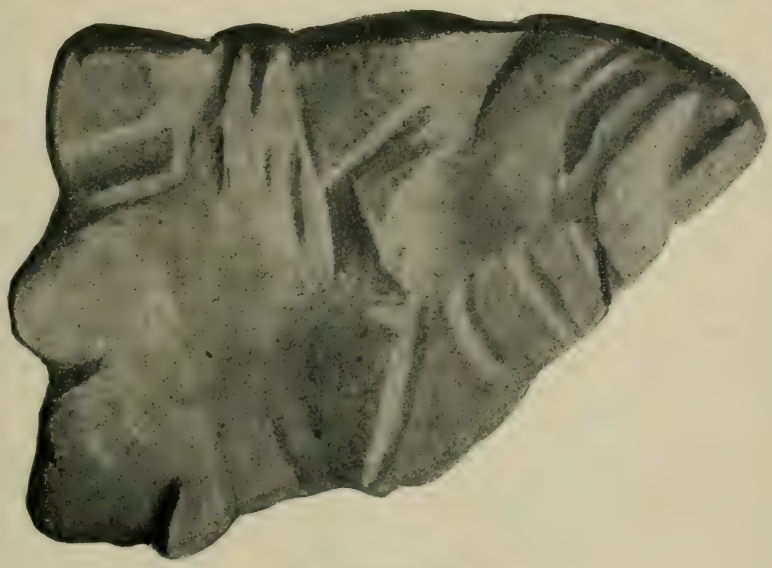


Fig. 49. (23684.) Full size.

Notwithstanding that this site was discovered and despoiled over forty years ago, a large quantity of valuable material has during recent years found its way to the museum, while a considerable quantity still reposes in the cabinets of private collectors. The relics found prove this village to date from the French period. Iron tomahawks, French beads, fragments of brass kettles, etc., are found all over the place. Brass kettles are said to have been taken out in large numbers when the ossuary was first excavated, some sound enough to be used by the surrounding farmers. Numerous glass beads have been found here, of various sizes and colors, also wampum of both French and Indian make, catlinite beads of Indian manufacture, and beads, gorgets, and pendants of conch shell. Many interesting

relics have been picked up here. Mr. Jas. Heath made the discovery of a shell gorget, with a portion of what has been identified by Mr. Boyle as a conventionalized rattlesnake, engraved upon it—a pattern that has been found upon similar gorgets in the Southern States. This does not necessarily imply that the tribe was of southern origin, but indicates the extent of intertribal trade relations. A bone implement of uncertain use was also found. This was some eight or nine inches long, having a shaft and a leaf-shaped tip, with serrated edges, perforated in the middle. Clay pipes in various states of preservation have been discovered in considerable numbers. Not many stone pipes have been found of recent years, but large numbers are said to have been obtained here formerly. The clay pipes show some uniformity in pattern and ornamentation. The majority have short stems and conical bowls, ornamented with parallel lines. A few square-mouthed bowls, and some of other shapes, have also been found. Pottery fragments in great profusion were formerly to be gathered from all parts of the site, and from the creek bed on each side. A small clay cup or ladle was found by one man. The clay for the manufacture of pottery was at hand, in the bank of the creek, and on the neighboring hills, while the stream, with its dirty, brackish water, furnished the only supply for drinking and culinary purposes. Granite, burnt and pounded, was the material usually employed in tempering pottery, but at least one fair-sized piece has been found here where shell was used. Quite a number of harpoons of horn and bone have been obtained, showing that good fishing was to be had nearby. Large fish bones found in the ashes prove the same thing. Some of those found are of pike, mullet and catfish, all of which still frequent Mud Creek at certain seasons.

Large quantities of bones of all sorts lie scattered among the ashes here, and on the other sites. The identification of these forms an interesting study for the archaeological student, and throws considerable light on the domestic economy of the Neutrals. Another implement typical of this locality is the large disc-shaped stone, of which so many have been found. These stones are usually from four to six inches in diameter, and about one and a half inches in thickness, with a hollow pecked in the middle of each face. Stone pestles are, I believe, never found among these Neutral villages, and stone mortars very rarely, showing that wood was used for this purpose. A very large number of the chert implements called scrapers have been found on the sites in this district and in the fields. Many bone tubes, usually called beads, have also been collected on these sites. Some of these tubes bear tally-marks, and others have rude designs scratched upon them. Horn pins continue to crop up quite plentifully. These pins are cylindrical, and are nicely rounded at each end. The lengths vary greatly, and one end is usually slightly thicker than the other.

The Jesuit relations give the people of this nation the reputation of gamblers, yet nothing has been found that can be positively identified as devices for gambling, but if these consisted of

wood, or seeds, or fruit stones, we can readily account for the lack of such articles on the village-sites. The Jesuit Relations speak of the abundance of chestnuts found in the Neutral country. These are yet plentiful, especially east of here.

(2) Site on the farms of Bundy and Bodwell, back portion of lot 10, 1st range, S.H.R.

Across Mud Creek, and about five or six hundred yards southwest of the site on the Mitchell or Seeley place, is another village-site, indicated by ashbeds, mixed with fragments of the usual kinds, and showing some signs of contact with the French. This would place it, and others where French relics are found, in the first half of the seventeenth century, which marks in a general way the interval between the arrival of the French and the extinction of he Neutrals. Half a dozen ashbeds are visible in Mr. Bundy's field, and others are found in R. Bodwell's bush, where it is hard to count the exact number. Cultivation is gradually mixing the ashes with the surrounding soil, and will in a few years render the spots indistinguishable. This was possibly one of the villages which made the ossuary on the Mitchell farm.

(3) A small site exists at the back of the T. Ludlow (lot 11, 1st range, S.H.R.) and Ira Vanderlip farms, where the two meet. There are a few ashbeds in Mr. Ludlow's field, and two in Mrs. Ira Vanderlip's bush. A few very good relics have been collected here. At a recnt visit a "hammer-stone" was found, two arrow-heads, some bones of deer, turtle, and other animals, a few strips of brass kettle and several pieces of decorated pottery. In connection with the pieces of old brass kettle, it may be noted that these were frequently cut into strips suitable for the manufacture of beads, rings, bracelets, pendants, and various articles of adornment. Some ornaments, thought to be of copper, may prove to be made from this material, which becomes of the same color as copper through oxidization. The situation here is high, and the soil light and well suited for Indian cultivation.

(4) A small site has been discovered on the farm of Andrew Westbrook, which is the fourth lot of the Westbrook block, 2nd range, S.H.R. Some half-dozen cabin sites are marked by dark patches in the soil, mixed with broken bones and other fragments. The situation of the village is on high ground, along a bend of the far spreading Mud Creek. A well-modelled fox's or wolf's head of pottery was found here. Some strips of brass have also been found, a portion of a square-bowled pipe, deer, and other bones, and some flint scrapers.

(5) Walker's, lot 10, con. 2, Onondaga Township. On the back of this farm a small ossuary was discovered eighteen or twenty years ago. In some unaccountable way this discovery dropped out of sight after a few excavations had been made, and nothing more was heard of it, until about ten years ago, when it was rediscovered by a collector, as a result of some remarks made by the owner of the farm regarding traces of Indian occupation on his property. A village-site, judging from the usual signs, was situ-

ated close by, and to be consistent with previous conclusions, this must also be regarded as belonging to a different period from that of the ossuary. This coincidence with the case of the Mitchell farm need not be a subject for wonder, when we consider that the district had quite a large Indian population, and that camp or village-sites were changed frequently, for reasons mentioned elsewhere. The ossuary is described as being about ten or twelve feet in diameter and six or seven feet deep. The number of skeletons contained was about a dozen. On the wrist of one skeleton a bracelet made of kettle brass was found, an evidence that this one, at least, was placed there before the bones were denuded of flesh. A coiled finger-ring, some beads and other ornaments, which might be easily mistaken for copper, are, in the writer's opinion, made from the same material. These ornaments are very well made, and no doubt at one time were very striking in appearance. A fine owl-pipe of clay was found in the course of the digging operations, having brass discs, with perforations in the centre set in for eyes. A dozen or more good pipes were found altogether, some of clay and some of stone. The clay pipes were of the usual type. One with a human face, having a conical head-dress, is like some found in Nottawasaga, the ancient country of the Tionnontates, or Tobacco nation. Another of stone was of a type met with in the Canadian Northwest. Several pipes were found made from a light-colored stone, having long, slender stems and bowls, and figures carved on the front. One small stone pipe had a lizard-like animal clasping the bowl. Several large shell gorgets were obtained, and a small slate gorget having a blue glass bead let into a hole on one side. Some of the most interesting remains were those of materials which usually decay and disappear. If these relics belong to the Neutrals, which seems beyond dispute, their age must be two hundred and fifty years or more, as the ruin of this nation was completed by 1652 or 1653. This remarkable preservation of perishable articles may be accounted for by the dry situation, and the fine sandy soil, which would exclude the air. One brass kettle contained a mass of squash seeds and remnants of fur, which could be easily identified. Fragments of coarse cloth were turned up, showing the texture distinctly, also spoons or ladles, of both wood and bone. A whole pot and several imperfect ones were also rescued. There is no doubt that, if the excavations here had been under the supervision of an archaeologist, much more interesting material would have been preserved. The largest square-mouthed pipe yet noted was found here (No. 22779, Provincial Museum). A good skull (No. 23683) and a quantity of wampum were also obtained. The whole locality is still in bush, which consists of hardwood timber of large size. Many of them no doubt were growing at the time of the Feast of the Dead, now over two centuries and a half ago. The village at this place was fortunate in possessing a spring in the hillside, near the margin of Mud Creek. The conditions are much as we can imagine they were in ancient times; a small clearing, which scarcely dispels the forest shade, where the warbling of song-birds, and the cry of the hawk may still be heard. The red deer has followed many of its ancient companions, but the fox

yet steals along among the trees, and the raccoon, woodchuck and other small game still flourish in the fields and woods.

(6) The Lang and Dowling site, lots 4 and 5, 1st range, N.H.R.

In a quiet spot at the rear of a farm owned by J. Lang a small site is known to exist. A portion of the land is cultivated, and shows some four or five ashbeds, where quite a number of relics have been found. These consist of articles characteristic of the neighborhood, such as pipe-bowls, bone awls, wampum, catlinite and French beads, bones, pottery fragments and flints. Mr. James Heath found a spoon made from an animal's shoulder blade (see Fig. —), also some other articles now in the museum. The site is high and sandy, and was evidently in use for a number of years.

(7) Fonger's (formerly H. Book's), lot 50, con. 2, Brantford township.

A large site was found on this farm twenty years or more ago. It occupies some four or five acres on the banks of a small stream running into Fairchild's Creek. The land, which was until recently a bush, is now being prepared for cultivation. Corn hills are said to have been observed on a neighboring hillside. A large quantity of relics has been picked up here, but is scattered among numerous so-called collectors, many of whom are merely greedy relic-hunters and curiosity-mongers. No reasonable offer from any Canadian institution is capable of tempting this class of people to allow their collections to be placed where they will benefit the public. The large quantity of relics obtained at this place may have some connection with the Iroquois raids, which finally destroyed all of these peaceful villages.

(8) Byron's, lot 44, con. 1, Brantford Township.

A small site, scattered over two or three acres, is situated here. Quite a number of relics of the usual type have been gathered by various collectors. The ashbeds are fast becoming indistinguishable through cultivation. The village was situated on rising ground, not far from Fairchild's Creek, and was evidently occupied for a few years.

(9) C. Kitchen's, lot 36, con. 1. Brantford Township.

Another small site is located on this farm. The remains do not present any unusual features. The situation, as usual, is on high ground, and the soil is sandy. This site is much farther from the creek or river than the others, but was evidently a Neutral camp for a period long enough to render the site recognizable.

(10) A site has been found on the farm occupied for many years by R. Porteous, dairyman, and best known from this fact. The farm is just past the eastern end of Mohawk Lake, on the south side of the road. The Indian village was on a slope facing the river, and about one hundred yards from it. Flints and pottery are plentiful all along the river bank between Cainsville and Brantford, and also along the river west of the city. The principal places of this kind will be found marked on the accompanying map. A workshop, or place where flints were made, was found by the

writer not far from the last mentioned village-site. Here was a large quantity of flint chips and many arrowheads and other implements in various stages of manufacture. The village-site is indicated by four or five ashbeds. The fragments found prove the village to have belonged to the Attiwandarons or Neutrals. Cultivation is rapidly rendering this site unrecognizable, although a few years ago it was quite plain.

(11) Mr. Hartley Turner, of Brantford, informs me that he is acquainted with the location of a small village-site on Mr. Henry's farm, just south-west of the Mohawk Church, near Brantford. This was near the road and on the bank of a small stream. A few relics have been picked up there. Cultivation has now almost obliterated all traces of the two or three ashbeds that formerly existed.

Trails, etc.—The location, or disposition, of the village-sites in the eastern portion of Brantford Township makes it evident that they were connected by a trail, with various branches and deviations, running from north-east to south-west. There is little in the configuration of the country here to guide us, but we may be certain that this trail ran, in a general way, parallel with Fairchild's Creek, and crossed it on con. 1. Another trail ran parallel with the Grand River along its north bank, while the south bank shows many indications of being a line of Indian travel. Canoes were, of course, made use of to some extent, but we have reason to believe that the Neutrals were not pre-eminent as boatmen. We are assisted in locating these trails by the flints, pottery and other fragmentary evidence scattered through the fields. The road from Onondaga which runs east of Fairchild's Creek to Langford, and leads by one fork to Cainsville, has been a highway for Six Nation travel during the period dating from the settlement of the country by the whites, and was possibly in the first instance an Indian trail. The Hamilton road, running east and west, is reputed to have originated in an Indian trail, becoming next a settlers' road, and finally a well-graded road for public travel.

The Villages of the Missionaries.—As to the relation which the foregoing villages bear to those visited by the Jesuits, Breboeuf and Chaumonot, in 1640-1641, it is evident from the Relations that Kandoucho, or All Saints, cannot be claimed by Brant County. Lalemant states that they travelled all the time directly south after leaving the Huron country, during the first stage of their journey. It was no doubt difficult for them to estimate distances with accuracy, but it must have been comparatively easy to note direction.

The location of Kandoucho may have been correctly named by Mr. Harvey (Toronto Mail, Dec. 11th, 1885) as one of those at Lake Medad in Halton County, as this lies almost directly south from the country of the Hurons. It also occupies approximately a halfway position between the Huron country and the Niagara River, which also agrees with Lalemant's statement. This writer states the distance as forty leagues to the first village, and no doubt the journey over a rough trail seemed that length to the weary priests, but a reference to the map of Ontario will show

that the whole distance from the site of St. Mary-on-the-Wye to the mouth of the Niagara is no more than sixty leagues, so that this estimate of the distance must be incorrect. More reliance may be placed on comparative distances, so that we may still look upon Kandoucho as occupying a halfway position.

The chief village of the mission, Notre Dame des Anges, was probably that of the head chief Tsohahissen, where a long stay was made, waiting for his return and sanction to their labors. Sanson places this on the west side of the Grand River, near Brantford. At the present time no large site is known to be situated on the west or south-west side until we arrive at Whiteman's Creek, where a good-sized village is known to have been situated. This is not opposite Brantford, but is north and west of the city. Sanson's reference may have been to this site, but it is possible that the position of the village was indicated in a general way only. In such a case, a strong candidate for this distinction is to be found in the Mitchell or Seeley site, situated seven miles south-east of Brantford, both on account of its large size and the plentiful evidences of French contact. Teotongniaton or St. Guilliaume, the place where the missionaries were befriended by a kind-hearted squaw while on their dismal return, was possibly where Mr. A. F. Hunter considers it likely to have been, viz., lot 12, con. 7, Township of Beverly, as, according to the Relations, it should be halfway between Kandoucho and the village of Tsohahissen.*

Respecting this spot, see also History of the Catholic Church in the Niagara Peninsula, by Dean W. R. Harris, D.D., appendix B., page 339.

MALAHIDE, YARMOUTH AND BAYHAM TOWNSHIPS.

By R. T. Anderson.

This region was inhabited by the Attiwandarons or Neutrals, who controlled the immense supplies of flint found along the east end of Lake Erie. As it was impossible for the Iroquois and the Hurons to carry on war with each other without a supply of flint for weapons, the Attiwandarons were permitted to remain Neutral during the bloody Huron-Iroquois wars, and hence the abscence of large ossuaries in this district. In only a very few instances have a number of skeletons been found together. Some years ago, while removing earth during the making of a lane on the Luton farm, just south of Mapleton, lot 17, con. 10, Yarmouth Township, a number of crania were uncovered. Also at the "Old Fort," townline of Bayham and Malahide Townships, several skulls have been ploughed up in the neighborhood of the earthwork. Most of the graves contain but one or two skeletons.

*In the Archaeological Report for 1897-8, p. 32, Mr. Boyle, writing of what is known as The Jesuit Stone, says it was "Found on lot 24, con. 5, Township of Vaughan, and County of York. We know of no Europeans who were in this part of the country at that time (1641), except Breboeuf and Chaumonot, who, in the spring of that year returned from a fruitless mission, and were then on their way to Ste. Marie (on the Wye).

"The exact route followed is uncertain, but there seems to be some reason for the belief that not far from where this stone was found stood the Indian lodge mentioned in the Relations as the asylum of the well-nigh famished priests on their homeward journey."

As the usual method of burial among the aborigines was to expose the bodies on scaffolds until the bones were bleached, these being then gathered together into a common grave or pit, the occurrence of single graves may point to Jesuit contact and influence.

Since writing the above I received a letter from Mr. Geo. R.

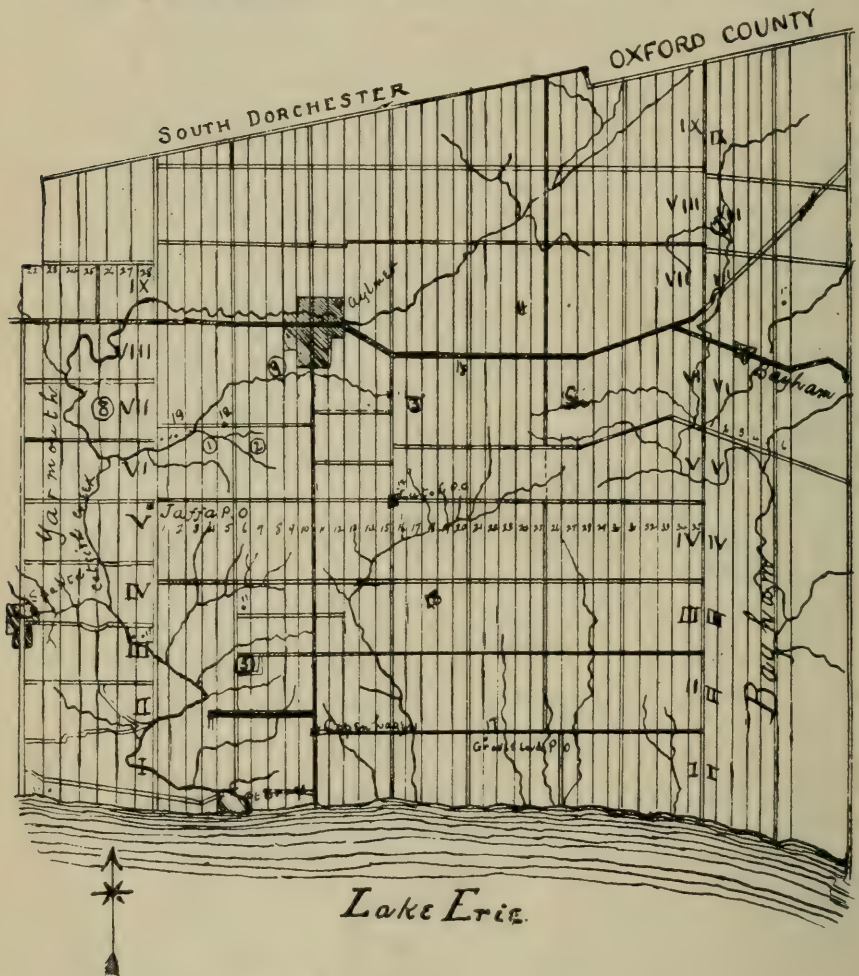


Fig. 50. Map of the Township of Malahide, Elgin County. (With part of Yarmouth and Bayham Townships.)

Luton, of Trinity Medical College, Toronto, containing the following information about the finding of the skulls near Mapleton:

"About twenty years ago, while making a cut for a lane or driveway, my father and uncle came upon a large number of skeletons. As far as I could learn, they were from four to six feet below the surface, the position being a very gravelly hill. The bones were in various states of preservation. About twenty-five crania were unearthed, along with other bones, which they were not particular to remove. Many of the crania were large, yet

there were some apparently belonging to younger individuals. The teeth were intact in many, and the femurs and humeri showed signs of great muscular development in the subject. In this pit they also found arrowheads, skinning stones and various other stone implements.

"Then, about ten years ago, I remember my grandfather digging up a cedar tree which stood in the way. He did not go down over five feet, yet I saw, myself, several crania and other bones, which were in a good state of preservation. The hole was not over six feet in diameter at the top and about three feet at the bottom. I remember three crania (intact) and numerous other bones being taken from it. There were also stones in the hole. The earth is gravel and sand at this spot."

Flint, or, more correctly, chert, as flint does not occur in this country, is found in nodules in limestone, and is the remains of silicious material, such as spicules of sponges, etc. These nodules vary in size, some being quite small, others large enough to make half a dozen or more arrowheads. This chert was either shaped at the quarry into rough pieces of leaflike forms, from

Fig. 51, (24739) full size.

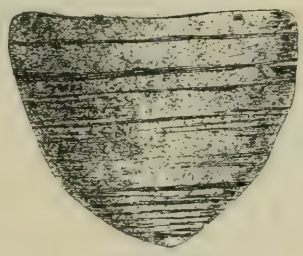


Fig. 52.

which arrowheads, spearheads and various implements could afterwards be made, or, if the nodules were small, they were carried to the villages and there finished. Frequntly, in or near camping sites, portions of chert nodules are found. At Point Abino, Welland County, is one of these aboriginal chert quarries. It is an interesting fact that flint relics in Western and Central New York can be traced to these Lake Erie deposits. Chert relics are abundant in this region, and can be best illustrated by reference to some of the different classes found. We may divide these roughly into four classes: (1) drills, (2) leaf implements, (3) scrapers, (4) miscellaneous implements. Huronian slate is a material which was much used in the manufacture of ornamental and ceremonial relics, being well adapted for these objects, but too soft for implements. This Huronian slate is the "pipestone" of the modern Indians, being used at such places as Fort Francis, although it is far from as nicely stratified as that found in some of the banner-stones of the aboriginals. Figs. 51 and 52 give two views of a Huronian slate drill-rest, or what we may suppose to be such. Its rounded exterior form would render it suitable for being held in or pressed by the palm of the hand, while the small hollow in the middle of the larger one may have served to hold the upper

end of the drill-shaft. It was found on lot 23, con. 1, Yarmouth Township.

The gorgets are of this slate, but vary a great deal in size, shape, number of holes, etc. These gorgets were peculiar to the Neutrals. They are surface finds in Ontario, and are not found north of a line drawn from Toronto to Goderich. They may antedate the flint relics of our region.

Fig. 53. Full size.

Banner-stones, supposed to be ceremonial objects, are also made of Huronian slate. Fig. 53 (24843) is a so-called "one-armed" banner-stone. The holes in these are always oval.

Fig. 54. Full size.

Stone pipes are not very common. Some good specimens have been found on location 19, of which the best were in the collection of the late Dr. Tweedale.* Fig. 54 shows an unfinished

* These are now in the Provincial Museum.

slate pipe, which has been rejected on account of the slate splitting.

Other stone relics found in the camp sites were pendants. These were usually made of bluish slate, more or less oval in outline, and having a hole drilled near one end. Nearly every camp site contains them. Fig. 55 represents a peculiar slate

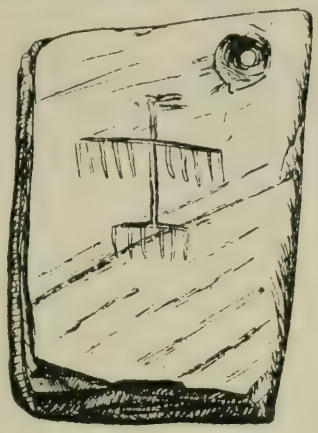


Fig. 55. Full size.

"totem" found in site No. 7. A piece of shell wampum which seems to be very scarce in the sites examined, and a comb-like bone pottery marker were found on site No. 1. See fig. 56.

Bone instruments are frequently found, bone awls especially being common on all sites, they are mostly made of splin-

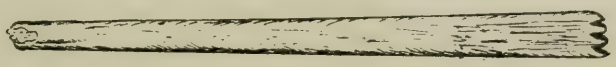


Fig. 56. Full size.

ters of deer leg-bones; some have begun to crumble, others are as solid as when they were made. Figs. 57-59 (24715) is a well-preserved specimen, of which three views are given; may also have

Fig. 57. (Full size.)

Fig. 58. (Full size.)

Fig. 59. (Full size.)

been used as a tally. Many pieces of deer horn and other bones have been cut off to make beads, etc. Besides beads, pins were made from the deer horn, and these are found in most of the sites. Fig. 60 represents one of unusually large size. The use of these pins is unknown.

Unio shells are common in all the heaps, many of them crumbling easily, owing to partial calcining. Some of the empty

shells were used as pottery slicks, others were used to scrape out the cooking vessels, and are worn on the outside edge. These valves are principally of unio complanatus, the commonest unio in our ponds and slow streams at the present time.

Clay pipes, mostly broken, are found in all the sites. These are of various shapes, and show all variations, from a plain bowl to quite elaborate designs. In making these pipes one of the diffi-

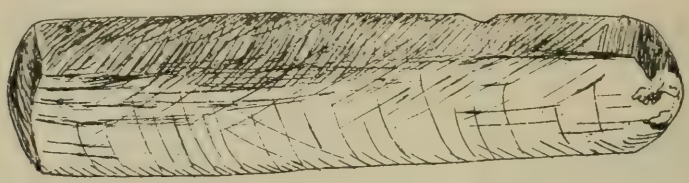


Fig. 60. Full size.

culties was to get the hole through the stem. This was effected by modelling the stem around a flexible twig, or a thong, which was destroyed during the baking of the pipe. The general shape of the stems was round and tapering; others were flat and more massive. Fig. 61 is square in cross-section, and the ornamentation is prolonged down the stem.

Pottery is the most characteristic relic of the camping-site, and will always be one of the most interesting things that the aboriginals have left us, for with the advent of European vessels, the art of pottery-making vanished, and as vessels of Indian make were easily broken, very few perfect ones are to be found. We learn from these few, and the great numbers of fragments found in the village-sites, that the general shape of the vessels found in Ontario was that of a round-bottomed, wide-mouthed vase, often with a lug or ear. The advantages of a round-bottomed vessel were strength, and the fact that they stood more steadily in a hollow on the Indian table—the ground.

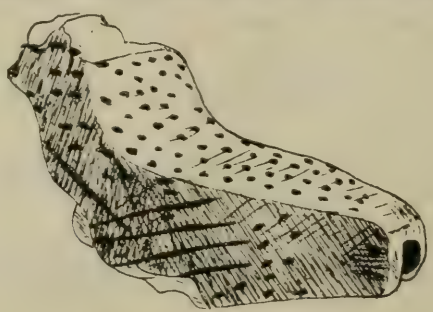
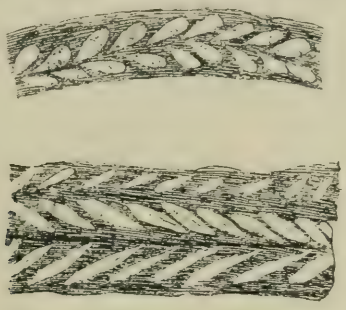


Fig. 61. (Full size.)

The material of which pottery was made consisted of clay, mixed with burnt or decomposed granite or gneiss, the constituents of which, feldspar, mica and quartz, may be clearly seen in many of the fragments. It is largely due to this that the pottery crumbles so easily in damp ground. In the manufacturing of a vessel, water was added to the mixture, making a dough, and

this was moulded in layers, shaped and smoothed by means of paddle-like tools and clam-shells. The ornamental markings are confined principally to the outside surface of the neck. A very few pieces have markings on the inside of the mouth or on the main body of the bowl outside. These were made by means of such instruments as shown in Fig. 56, by sharp pieces of bone, and even by the thumb nail. One piece shows impressions of finger-tips, where the artist has evidently pressed on the plastic vessel while punching the "bosses" from the inside. Many of the fragments are of almost uniform thickness, from a fourth to three-fourths of an inch. The marking are mainly dots and straight lines, but a few pieces from site 1 are interesting, in that they show an advance on these primitive designs. In one of these the



Figs. 62-63, (24830). (Full size.)

markings are crescent-shaped. Figs. 62-63 (24830) show unusual markings, the design on the rim resembling a spray of leaves. This is a decidedly unique design, and probably the nearest approach to the representation of plant life hitherto found on such pottery in this Province.

Animal Remains.

One of the most interesting branches of study, and one that has been too long overlooked, is that of the animal remains found in the sites. From a study of the bones in such places, many valuable facts can be learned in connection with the animals used as food, and their relative bundance. The following is a list of the species found in sites 1 to 4. This list is by no means complete, as many of the places have been dug over several times, and, as usually happens, no attention having been paid to the animal remains, many of them are destroyed or lost.

Unio complanatus: Specimens of this species are found in nearly all the sites, and no doubt it formed one of the staple articles of food. Many of the valves are partially calcined, while others are worn with use as scrapers and as pottery slicks.

Salmon Trout (Salmo namaycush): A large vertebra four-fifths of an inch in diameter is probably of this species. The fish to which it belonged must have been over eighty pounds.

Channel Catfish (Ictalurus punctatus): This is the commonest species of fish found in camp sites in this locality. At the present time they run up the Catfish Creek at Port Bruce in large numbers. Dentary bones, hard rays, and cranial bones occur most frequently. Many of these are from large specimens.

Pickerel (Stizostedion canadense) : Two dentary bones of this genus are from site 1. It is one of the most abundant fish in Lake Erie at present.

Mud Turtle (Chrysemys picta): Broken pieces of the carapace were found in site 1. It is a very common species in the ponds around this site.

Snapping Turtle (Chelydra serpentina): Costal plates occur in site 1. This species is also very common in the township, and is often found on land, or on the margin of ponds and streams, so that it was no doubt frequently obtained by the Indians. A humerus was also found, which was worn smooth around the middle, having probably been worn attached to a thong.

Ruffed Grouse (Bonasa umbellus): Three tibial bones and a fragment of the sternum (probably of this species) were found.

Wild Turkey (Meleagris gallipavo): A cervical vertebra and the distal part of a radius and ulna from site 1. Also a sternum.

Beaver (Castor fiber): A tibia of this species from a very large specimen, and also the proximal portion of an ulna from site 1.

Ground Hog (Arctomys monax): Lower jaws found in several of the sites.

Raccoon (Procyon lator): Several jaws and the proximal end of an ulna from site 1.

Black Squirrel (Sciurus carolinensis): Many lower jaws of this species occur in the various sites. The squirrel is still fairly common in the district. An ulna probably of the same species was also found.

Dog (Canis domesticus) : The anterior part of a skull was found in site 3.

Deer (Cariacus virginianus): The bones of this species are the commonest in these sites. Vertebrae, horns, pieces of crania, phalangeal bones, broken jaws and teeth are the ones most frequently found. Many of the horns are of large size, some of them having been cut off the skull, while others have still a little of the cranium fastened to them. The phalangeal bones were used for beads, and are found in all stages of construction. The leg bones were used for awls and other instruments. The skulls and jaws are all broken, the pieces of the jaw rarely being over two or three inches in length.

Moose (Alce americanus): A number of heads of bones, probably of this species, were found in one site.

Black bear (Ursus americanus): Bones of this animal are common. One portion of a humerus, seven inches long, is from a very large animal. Canine teeth occur frequently.

Lynx (Lynx canadensis): A leg bone doubtfully referred to this species was found.

Indian : In site 6 was found part of the frontal bone of a human subject (25056). It will be interesting to determine to what extent human bones are found in the camping sites.

Village Sites.

No. 1.—This site, by far the largest in the district, is situated on the north-west quarter of lot. 4, con. 5, Malahide. There are at least twelve camping-sites, mostly of considerable size, and all placed on a level sand ridge which lies between two spring creeks. It would have been difficult to find a better site than this one was, situated on the bank of a fair-sized spring creek, which emptied into the Catfish, a mile to the west, thus forming a continuous water route to Lake Erie. The ridge was originally covered with large white pines; in fact, just west of the site, on the same lot, many of the pines are still standing, the only remnant of the once dense pine forests of this district. The immediate neighborhood of the village site has been cleared off at one time, but has grown up since with second-growth white pine, hawthorn and white oak, varying in diameter from four to twelve inches. The old pine stumps are still undisturbed, and give us some idea of the age of the site. The stumps as they stand, without bark or sap wood, measure from nine to twenty-five inches in diameter, there being about twelve on the different camp sites.

As ashes, pottery, bones, etc., are found under the crowns of these stumps, it is evident that the sites were occupied before the trees grew on them. Beneath one of them the remains of a clay vessel were found, lying in a circle, just as it had fallen to pieces. These are now in the Provincial Museum, and may be put together. That the camp-sites were used for a long period is shown by the depth of the refuse accumulation, the great number of fish, deer and other bones, and the large quantity of broken pottery. All the larger camp-sites have an elevation of from four to sixteen inches. No. 1 may be taken as a type. This is dome-shaped, circular, and about fifteen feet in diameter, the earth is black, with here and there traces of ashes, containing pieces of charcoal. A bed of ashes at a depth of sixteen inches was two feet in diameter, and had never been disturbed, the ashes being so hard that it was difficult to cut them with a shovel. Near the edge the pottery was at a depth of eight inches. There were also worn unio shells, deer teeth, horn and bones, black squirrel jaws, spines of channel catfish, bone awls, pieces of clay pipes, flint chips, and fire-cracked stones. In addition to these, in the other sites were found a few small flint arrowheads, horn pins, flint scrapers, a number of worked pieces of deer horn, bone awls, and slate pendants. An interesting relic, and one that gives us some idea of the force with which an arrow could be driven, is a post cervical vertebra of a red deer, which has a broken flint tip embedded in it. A short distance to the north-east of this site, Mr. Leonard Powers, while grading the fifth concession across lot 5, fourteen years ago, levelled several camp-sites (location 12. Fig. 50) which contained pieces of pottery, fish bones, skulls of animals, etc.

Site No. 2, east half of lot 7, and west side of lot 8, con. 5, Malahide.—Site No. 2 is about one mile east of site 1, on a sandy ridge, which lies between two forks of the spring creek, flowing

past site 1. In these ash heaps are the same kind of relics as in site 1. A perfect, large-sized clay vessel was taken out of one of the heaps on lot 8. This vessel is now in a private collection.

The neighborhood of these spring creeks seems to have been a favorite camping and hunting ground. Between sites 1 and 2, 1 and 8, 2 and 9, a great many arrowheads and some celts have been picked up.

Site No. 3.—This site is situated on concession 6, about two miles east of Aylmer. This is the highest location in the township. About three-quarters of a mile to the north is the "Big Cedar Swamp," the intervening space being originally covered with a dense pine forests. The ridge forms a watershed, and judging from the remnants of the hardwood forest, was once thickly covered with timber. Within the memory of the present owner, there were a number of springs in the neighborhood of the site, but these have disappeared with the forest.

There are two main camp sites, one situated in the edge of the hardwood on lot 18, the other just over the line fence to the north-west, on lot 17. The principal site on lot 18 is about twenty-five feet in diameter, and, with the smaller sites, is covered with large hard maples. Two large clay vessels have been found here, neither of which survived the "finding." One, found by some boys while digging for relics, was broken to pieces in their haste to get it out. The other, which had a capacity of from one to one and a half bushels, was dug out complete, but crumbled on exposure to the atmosphere. In addition to the usual bones, pottery, etc., there are a few things of interest. The first of these is a piece of pottery, the markings on which have been made by a serrated marker. Two pieces of large clay pipe bowls have interesting types of designing. Other fragments of pottery show incrustations of burnt food.

To the north of the camp-sites, which are about the centre of the lots, is a sandy field, situated on the slope of the ridge, and containing a small hill. In this field many arrowheads and celts have been found. Mr. Huffman has also found four or five complete skulls and the larger bones of the skeletons.

Several graves have been found on this ridge, Mr. S. S. Harper while excavating for a foundation on lot 20 (Location 16), found a large skeleton and part of a small one, at a depth of three and a half feet. On the south end of lot 16, con. 5 (Location 14), Mr. W. Brown uncovered two skeletons in his gravel pit at about the same depth. The larger, an adult male (judging from the skull about eighty years old), was almost complete, the larger bones only of the smaller skeleton (a child) were intact. At the time that Mr. Brown found the skeletons the writer was unable to go out to see them, but afterwards obtained the skull of the adult—all that remained. This skull (24842), which is about the limit of the brachycephalic type in width, is interesting from the fact that the molars in the right upper jaw were lost during the life of the individual and the bone healed over. The wormiam bones on the cranium are very distinct.

Site No. 4.—This site is about the centre of lot 24, concession 7, Malahide, situated on the brow of a low ridge overlooking an

elm flat, it has an elevation of about six feet. The ridge is still covered with hardwood, and from the size of these trees some idea as to the limit of age of the site can be formed, as several of the trees are growing over and have their roots penetrating the ashes beds. The site is oblong in shape, about 66 by 25 feet, the longer axis lying north and south. It has been dug over several times, but some spots were found which were as yet undisturbed. The highest places are at the two ends. On the north-west boundary is a large black cherry (Prunus serotina) eighteen inches in diameter. Among the roots of this tree were pottery sherds and flakes of flint. Just a few feet to the north-east of this tree at a depth of four inches below the surface, part of the bowl of a massive clay pipe was dug up. This pipe (24752) has originally been two inches in diameter. On the top edge it has a thickness of one-fifth inch, while near the centre it is three-fifths of an inch thick. The markings, parallel slanting lines, are fine and somewhat indistinct. A row of markings, which has been made by a circular marker, occurs one inch from the top.

Near this another interesting relic was found, viz., a horn bead (24754) drilled at both ends, but not yet completed. The ash beds in the north end are about twelve inches below the surface. At another place pottery mixed with charcoal was unearthed. Near the centre of the site a large red oak, originally about two and a half feet in diameter, has lain until it is nearly all rotted. Beside this stands a group of three sugar-maples (Acer saccharinum), 8, 5 and 12 inches in diameter, which have grown on the top of the ash heaps. At this point the bottom of the deposit is two feet below the surface. Another sugar maple just south of the centre is nine inches thick, its roots penetrating an ashbed which has a quantity of charcoal scattered through it.

The pottery is nearly all badly disintegrated owing to the dampness of the soil and the fact that it has a greater proportion of ground rock than is usual, thus increasing its friability. There are in addition the usual deer bones and horns, bone awls, fire-cracked stones and fragments of clay pipes.

Village-site No. 5.—This site is on lot 6, concession 2, Malahide, about two miles north of Lake Erie, and about one mile east of Catfish Creek. A short distance north of the site is a deep gully through which a tributary of the Catfish flows. Until about thirty-five years ago there was a large spring on the south boundary of the camping-ground. The site covers three or four acres, the camping sites being in the form of a semicircle. On the north boundary were the remains of a number of graves, but owing to the sandy nature of the soil, which permits the water to filter through, the bones were so disintegrated that only traces could be found, any solid parts easily crumbling in the fingers. When the field containing this site was first cultivated, pottery and other relics were so abundant that the owner, Mr. John J. Gillett piled them up out of the way. At present the black earth marking the camping spots is quite shallow and would lead one to infer that this was only a temporary habitation. Through the kindness of Mr. Gillett the writer has received from time to time

during the last four years the relics which have been found while cultivating.* One of the most interesting of these is an unfinished stone pipe, 24833. The material is limestone and has been worked into the shape desired, and drilling commenced at the top of the bowl and at the stem end. The total length is four and four-fifth inches. The circumference of the bowl is the same. The hole in the stem is only one-tenth of an inch deep, while that in the bowl has been drilled three-fourths of an inch and then abandoned owing to the hole going so far off the centre. This piece is very much weathered, and small crinoid stems, brachiopods and corals appear distinctly on the surface. Celts occur quite abundantly on this site, ranging from very small (one of the smallest being about two inches in length and jet black) to large ones of bluish-black stone.

Village-site No. 6.—Site 6 is situated about a mile and a half south and a little east of site 4. Mr. Westover had just cleared the field in which the camp sites occur, and hence they were as yet very little disturbed. There are seven in all, ranging in size from ten feet in diameter (No. 1) to sixty by thirty feet (No. 6). The following table gives the relative dimensions and depth of the deposits :

No.	Size.	Depth of Deposit.
1	27 x 27 ft.	22 in.
2	27 x 21 "	20 "
3	27 x 18 "	18 "
4	12 x 12 "	18 "
5	33 x 18 "	7 "
6	60 x 30 "	16 "
7	10 x 10 "	8 "

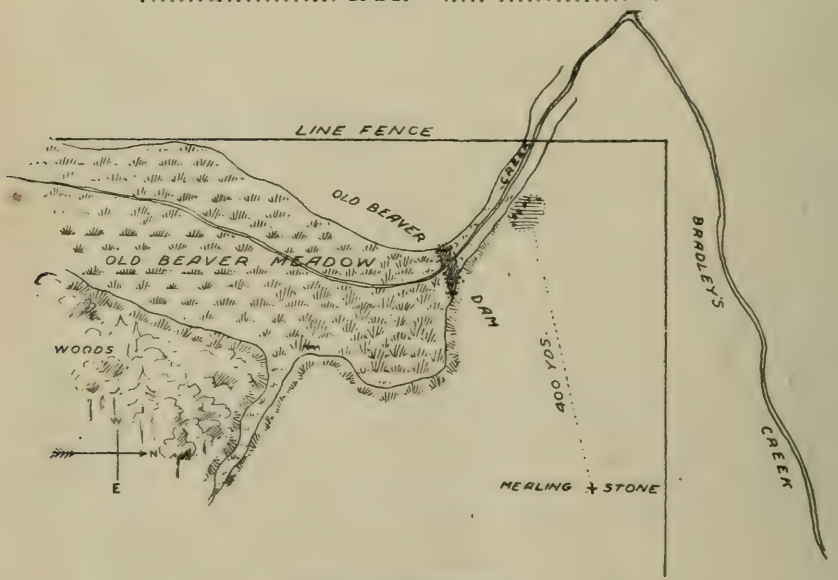


Fig. 64. Site 9, Malahide.

The usual pottery fragments, bones, cracked stones and flint chips were found.

*Most of these are now in the Provincial Museum.

Village-site No. 7.—This site is just east of the town-line between Malahide and Bayham, part being on lot 1, the remainder on lot 2. The part on lot 1 is still in the woods, on one of the highest elevations, but has been dug over several times. This part consists of one large camp-site, 36 x 40 feet, with a deposit of 18 inches in depth, and having fragments of pottery, broken bones and charcoal scattered through the ashes and discolored earth. A large pine stump, 2 1-2 feet in diameter, stands on the north-east edge. To the west one hundred and fifty yards distant is a creek. The main part of the site is just over the line fence on lot 2. Here there are four camp-sites with a depth ranging from ten to sixteen inches, and with similar contents. Mr. Thomas Moore, while stumping lately on his lot found a human lower jaw-bone and a bone awl under a three-foot pine stump, also ashes under a 16-inch beech. To the south of this site lies the old fort, a long earthwork, near which a number of skulls have been unearthed in ploughing.

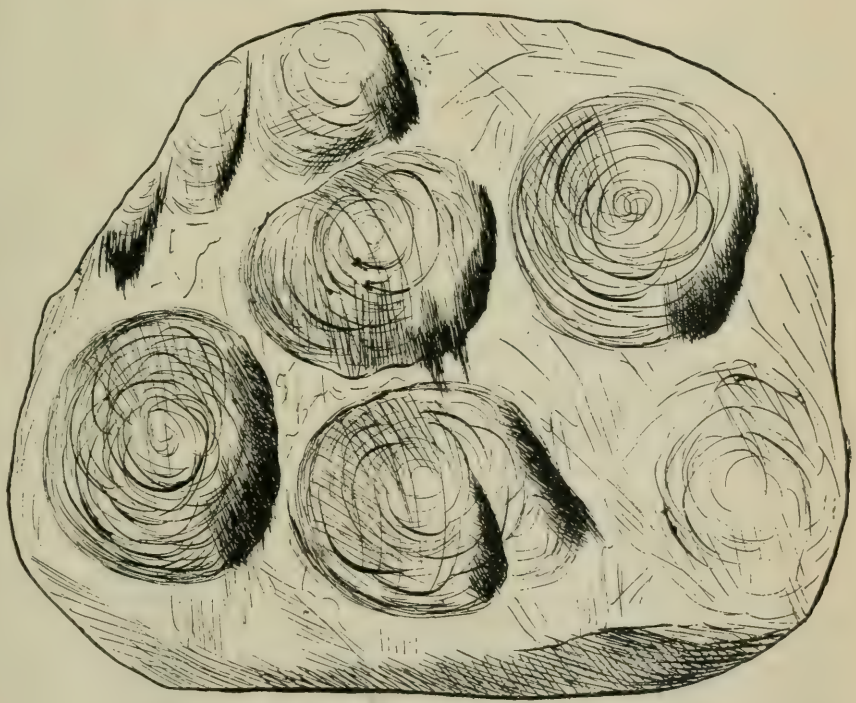


Fig. 65. Rough sketch of Mealing Stone.

Village-site No. 8.—Site 8 lies to the north-west of site 1, and in the next township (Yarmouth) one large camp on the farm of Mr. Joseph Bradt, lot 26, con. 7, has two large walnut trees on it, one of which has evidently been used at some time in its life as a back for a fire. On lot 25 there is a chain of camping-sites along the brow of the gully, a cluster of three lying just behind this row. This site brings us to the banks of the Catfish Creek, which

runs through Malahide township into Yarmouth, and finally empties into Lake Erie at Port Bruce in Malahide. All along the banks of this stream many relics are found, showing that it was a favorite locality with the Indians.

Site 9, Lot 8, con. 6, Malahide.—The location is on the farm of Mr. George Brown on the outskirts of the town of Aylmer. The field where the camp occurs has been in cultivation for years. There is the usual deposit of ashes and discolored earth about eight inches deep. The material consists of broken pottery, bones, etc. The most interesting feature of this site is the presence of a mealing stone four hundred yards from the camping-site. (See fig.64.) This stone is about three by three and a half feet, and has a number of pits. (Fig. 65.) Village-site No. 2 is situated south of this in the next concession, between two other spring creeks.

Sites also occur at locations 17 and 18, Fig. 1. The contents of these heaps are of the same character as those already described.

IDENTIFICATION OF ST. IGNACE II. AND OF EKARENNIONDI.

By Rev. A. E. Jones, S.J.

Our tour of exploration of August, 1902, resulted:

1. In definitively determining the location of the old Huron Village of St. Ignace II., where Brébeuf and Lalemant were tortured to death, March 16 and 17, 1649;

2. In discovering the "Rock that stands out," *Ekarenniondi*, from which the Petun Village of St. Mathias took its name. The position of this place gives us a clue to the whereabouts of *Etharita*, the Petum Village of St. Jean, where Fr. Charles Garnier was done to death by the Iroquois, Dec. 7, 1649.

I.

Identification of the Site of St. Ignace II.

To answer off-hand, in a word or two, the question: "What makes you so sure that you have found the site of St. Ignace II.?" is no easy matter. To satisfy fully those of an enquiring turn of mind, I must proceed with method, and, in answer to the question, formulate a thesis which I hope to make clear and acceptable:

East half lot 4, concession VII., Tay township, is absolutely the only spot,

1. Where the configuration of the ground tallies perfectly with the description of St. Ignace II., given in the Relations and in Bressani,

2. Which at the same time lies at the proper distance, and

3. In the right direction from Ste. Marie I. (The Old Fort).

Configuration of the Ground.

RELATIONS. St. Ignace II. "was enclosed with a palisade of posts fifteen or sixteen feet high, and encircled by a deep depression [in the land], with which nature had powerfully fortified the place on three sides, leaving but a small space weaker than the other sides. It was through that part that the enemy, at early dawn, forced an entrance, but with such stealth and suddeness that he was master of the position before any attempt at defence was made, for the inhabitants were sound asleep, nor had they time to take in the situation." —*Rel. 1649, p. 10, col. 2, line 10 et ss.*

So, that as a place of defence, the site was not merely strong, but *powerfully* so, and those who visit the Campbell Farm, the lot in question, are immediately struck with its perfect conformity to the foregoing description.

More meagre of detail as to the conformation of the ground, Bressani's narrative is stronger in expression as to its powers of resistance :

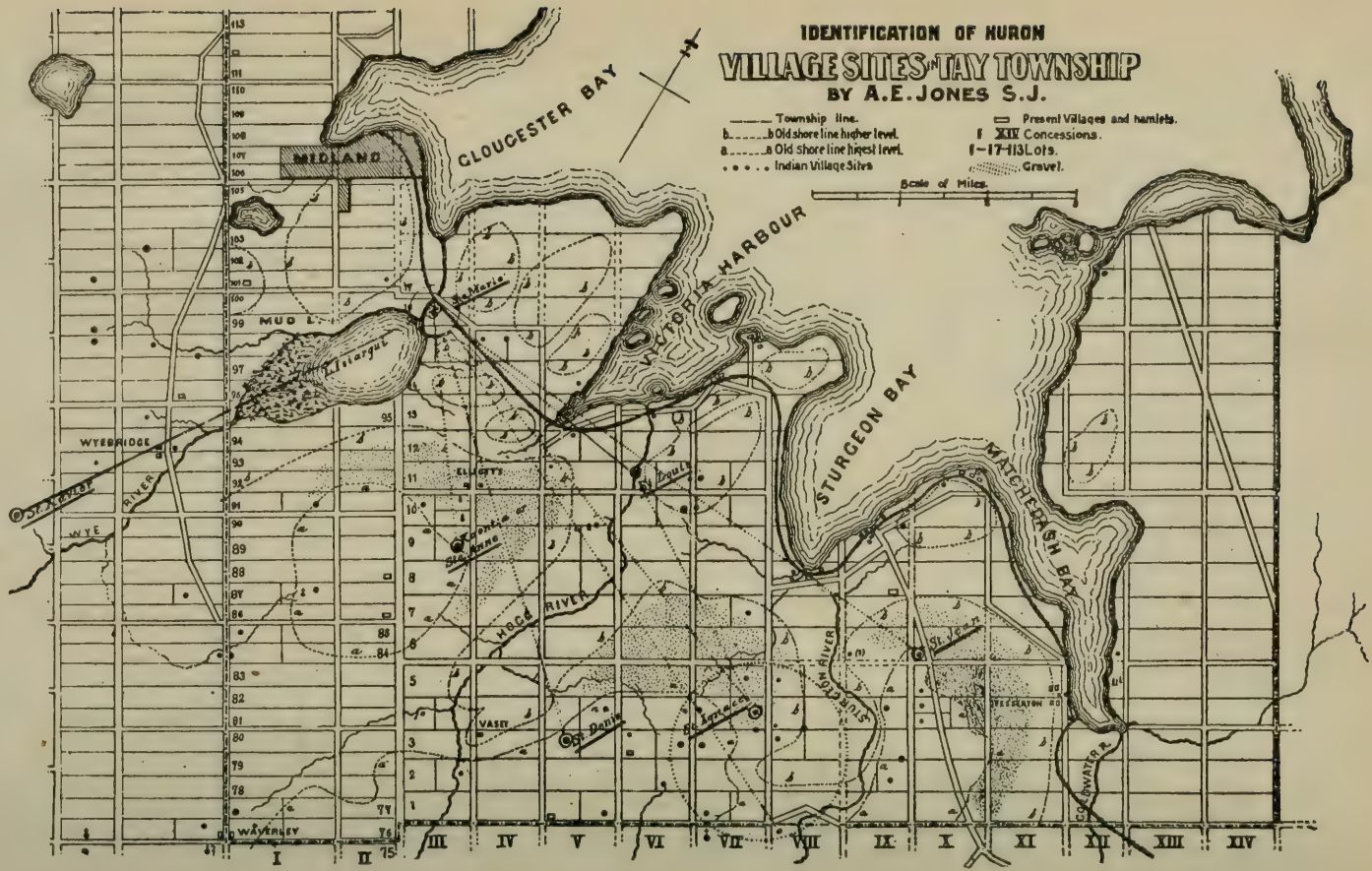
BRESSANI. "So stealthily did they [the Iroquois] make their way through the forests, that, at the break of day, on March 16, without having so far betrayed their approach, they reached the gates of the first village of the Hurons, named St. Ignace.

"Its site and the fortifications constructed thereon at our instigation, rendered it impregnable, at least for savages. But as its inhabitants were taken unawares, while the bulk of their braves were abroad, some bent on ascertaining if the enemy had already taken the field, others to engage in the hunt, the Iroquois easily managed to approach under cover of darkness, and, at dawn, as we have said, to effect a breach while the inhabitants were still fast asleep."—

Martin's French translation, 1852, p. 252, line 11 et ss.

West half lot 11, concession VI. has been suggested as the probable site of St. Ignace II. Not to mention its being but one league from the Old Fort, while St. Ignace II. was double that distance from Ste. Marie I., it is comparatively but a low-lying field, encircled, if you will, on three sides by the windings of Hogg River, but all resemblance to the site of St. Ignace II. stops there. Though strong as a position, were it palisaded, it could never be said to be *powerfully* fortified by nature, and much less could it be termed *impregnable.* It is doubtless the once fortified site of St. Louis, and it afforded shelter, especially in 1648 and 1649, to the inhabitants of the outlying settlement of the same village, situated across the little stream on lots 10 and 11, east halves of concession VI. and west halves of concession VII. In fact, the inset map of Ducreux sets down St. Louis to the east of what is now Hogg River, which on that map is the first stream counting from the one on which Ste. Marie was built, and which is now known as the Wye.

One of the reasons given for supposing the remains found on lot 15, con. IV. to be those of St. Louis (preposterously close to Ste. Marie I.) was, if placed elsewhere, the assumed impossibility of seeing the flames of the burning wigwams from the Fort, owing to intervening hills. The truth of the matter is, that the vista between the hills


IDENTIFICATION OF HURON
VILLAGE SITES IN TAY TOWNSHIP
BY A.E. JONES S.J.
Township line.
b Old shore line higher level.
a Old Shore line higest level.
Indian Village Sites
Present Villages and hamlets.
I XII Concessions.
1-17-113 Lots.
Gravel.
Scale of Miles.
GLOUCESTER BAY
MIDLAND
VICTORIA HARBOUR
STURGEON BAY
MATCHEDASH BAY
MUD L.
WYEBRIDGE
WYE
RIVER
HOGG RIVER
WAVERLEY
VASEY
I
II
III
IV
V
VI
VII
VIII
IX
X
XI
XII
XIII
XIV

extends not only to Victoria Harbour, but beyond, and as far as lot 11, con. VI.; so that the view is quite as much unimpeded as far as the site on Hogg River, as it would be were the site but a short quarter of a league from Ste. Marie I.

The Correct Distance from Ste. Marie I.

In the light of the old records, no reasonable doubt can be entertained as to the distance of St. Ignace II. from St. Marie I. St. Louis was about one league from St. Marie I., and St. Ignace II. was about the same distance from St. Louis, the three villages lying not quite in a straight line, but giving a total distance from St. Ignace II. to Ste. Marie I. of two full leagues.

Distance of St. Ignace II. to St. Louis.

BRESSANI. "Three persons only managed to escape [from St. Ignace II.] half-naked, and they hastened to warn the neighbouring village of St. Louis, only three miles distant."—*Martin's French Translation p. 254.*

RELATIONS. "Three men only managed to escape all but naked through the snow, and spread alarm and dismay through a neighbouring village [St. Louis] about one league distant. This first village [mentioned some lines above as the first to be attacked] is the one we call St. Ignace."—*Rel. 1649, p. 10, 2 col., line 30 et ss.*

GARNIER. "When the enemy [at St. Louis] took them [the two Fathers] prisoners, they brought them to their fort, distant a league or thereabout, and made them suffer every kind of torture."—*Letter of Fr. Charles Garnier to his brother Henry, Apr. 25, 1649.*

That Brébeuf and Lalemant were taken at St. Louis is evident enough, while the following passage from the Relations renders intelligible the expression "their fort" when applied by Garnier to St Ignace II.:

"As soon as the Iroquois had dealt their blow, and reduced to ashes the village of St. Louis * they retraced their steps to St. Ignace, where they had left a strong garrison, so as to assure a safe retreat in case of mishap, and to secure the stores they had found there, which were to serve as refection and supplies on their journey homeward." *Rel. 1649, p. 11, col. 2, line 41, et ss.* We have, consequently, the best authority for saying that St. Ignace II. was about one league from St. Louis.

Distance of St. Louis from Ste. Marie I.

RELATIONS. "The enemy did not stop at this [the sacking of St. Ignace] but followed up their victory; and before sunrise their armed bands appeared before the village of St. Louis, *Rel. 1649, p. 10, col. 2. line 44.* . . . About 9 in the forenoon from our residence of Ste. Marie we caught sight of the flames which were consuming the wigwams of that village, *Id. p. 11, col. 1, line 10.* . . . On observing the flames and the color of the smoke that rolled up from them, we could form a correct enough idea of what was taking place; for the

* At first the dwellings only. *See Rel. 1649, p. 12, col. 1, line 43.*

village of St. Louis was not more than a league distant from us." *Id. p. 11, col. 1, line 19 et ss.*

BRESSANI. "In fact, the enemy tarried at the first fort [St. Ignace] only long enough to provide for the safety of the guards and their prisoners. Thence they marched straight on St. Louis. *Martin's translations, p. 253, line 19.* . . . The whole fort was reduced to ashes. *Id. ib. line 28.* . . . The cloud of smoke which we perceived from our residence [Ste. Marie I.] situated two miles (*) from it, was our first intimation of disaster, but soon two or three fugitives coming in confirmed the evil tidings." *Id. p. 254.*

Direction from Ste. Marie I. (Old Fort).

With all its imperfections, the inset map of Ducreux is of incalculable worth as a guidance in identifying the Indian village sites.

Without it a knowledge of their respective distances from Ste. Marie I would be of little avail, seeing that we should still remain ignorant of the direction in which they lay. To restrict ourselves to the case in hand, we see by the inset map that the bearings of St. Louis, with reference to the Old Fort, are a few points south of east, the very same bearing from the same landmark as east half lot 11 con. VI.; which lot also is all but 3 miles distant. The usual indications of its having been a village site were more strikingly observable at one time than at present. With such evidence before us, it is not too rash to conclude that east half lot 11, con. VI. is really the spot where the village of St. Louis once stood.

* The length of the Italian geographical mile was 1,852 metres. See, sub vocab., *Dupiney de Vorepierre; Guerin, Dict. des Dict. tom.* 5, and others.

But other elements enter into the determining of the direction of St. Ignace II. from St. Louis; for it must be remarked here that the St. Ignace of the inset map is certainly not St. Ignace II., in other words, not that of 1649, but rather St. Ignace I., occupying quite a different site previous to July, 1648. It would require too much space to give my reasons here for what seems a naked assertion; I hope to do so elsewhere.

The distance, as we have seen, from St. Ignace II. to St. Louis was about one league. As to the direction, it may be positively asserted that St. Ignace II. did not lie on an absolutely straight line passing through St. Louis to Ste. Marie I.; for, this would place it in too close proximity to St. Jean, correctly marked on lot 6, con, X,, Tay. This crowding was to be shunned as liable to cause friction, owing, among other things, to the need each village had of an abundant supply of wood. On the other hand, its site must have been very little out of the straight line, since another reliable document gives the entire distance of St. Ignace II. to Ste. Marie as two leagues.(*) Were this measure mathematically correct, the sum of the other two distances (Ste. Marie I. to St. Louis and St. Ignace II. to St. Louis) must have been at least a trifle in excess of two leagues. At all events, the less the divergence from the straight line, the nearer is the approach to zero of the difference between the sum of the two distances mentioned above and the distance from St. Ignace II. to St. Marie I.

I said that St. Jean was correctly marked, consequently it is not to be crowded out, nor placed farther north. According to Ducreux's inset map, it lay almost due east, a very little to the south, between Sturgeon and Coldwater (*or Matchedash*) Bays, a *good* two leagues from Ste. Marie I. Lot 6, con. X., where village remains have been found, is similarly situated, and is just two leagues and a quarter from the Old Fort. The distance "*a good two leagues*" is given in a passage of Relation 1740 (*p. 72, col. 2, line 36*). But it must be borne in mind that the St. Joseph there mentioned is not St. Joseph II. or *Teanaostaiaë*, which was 5 or 6 leagues from Ste. Marie I. (*Rel. 1646, p. 79, col 1, line 44, taken in connection with line 13 same col.*), and 5 or 6 from Ossossanë (*Letter of Fr. François Duperon, Carayon, Premiere Mission, p. 172.*), but was merely another name for Ste. Marie I., into which both the residence of *Ossossané* and that of St. Joseph II. were merged, the former in the autumn of 1639, the latter in the early spring of 1640. (*Rel. 1640, p. 63, col. 2 midway down*). The house itself really bore the name of Ste. Marie or Notre Dame de la Conception, but the chapel, that of St. Joseph (*Same Rel. p. 64, col. 1, line 7-31*). In the original rescript or brief of Urbain VIII.,

* The obituary letter, written by his superior, of Brother François Malherbe, who died on the Saguenay Mission, April 19th, 1696, contains the following passage relating to the Brother while he was yet but a hired servant at Ste. Marie I.: "He had the honour as well as the charity to carry back to us [at Ste. Marie] on his shoulders, for a distance of two leagues the charred and blistered bodies (*corps grillés et rotis*, literally, broiled and roasted) of these two religious [Brébeuf and Lalemant]." See also *La Semaine Religieuse de Québec, June 9, 1889, p. 332*; and note on Bro. Regnaut's letter by the late Douglas Brymner in *Can. Archives Report 1884, pg. XV.*, who, however, errs in stating that this took place when the remains were being conveyed to Quebec.

dated Feb. 4, 1644, and still preserved in the Archives of St. Mary's College, Montreal, the chapel at Ste. Marie I. is mentioned as that of St Joseph. That the term used is "*maison St. Joseph*" and not "*chapelle*" or "*église*" would seem to militate against this explanation were we not told very expressly in the same Rel. 1640 (p. 63, col. 2, line 32): "and thus we now have in the whole region but one house (*maison*)," which house is spoken of all through the chapter as that of Ste. Marie I. Nothing therefore could be more certain than that St. Jean was two *good* leagues from Ste. Marie I or the Old Fort.

Admitting the position of St. Jean to be practically settled, one could no be far astray in supposing that the line from Ste. Marie I. to St. Louis deflected, at the latter place, slightly to the south. St. Ignace II. would, in consequence, occupy a position somewhere between and abreast of, St. Jean and St. Denis,* at a point about two leagues, or six miles from Ste. Marie I. Lot 4, east half, Con. VII. answers all the requirements of topical configuration, distance and direction from the Old Fort. I think this is all I undertook to make good.

A Difficulty Removed.

Concerning this location of St. Ignace II., a difficulty has been raised on account of the wording of Brother Christophe Regnaut's letter dated Caen, 1678. The passage in question runs thus: "Fr. Jean de Bréboeuf (sic) and Fr. Gabriel L'Alemant (sic) set out from our cabin (*cabane*) to go to a small town (*bourg*), named St. Ignace, distant from our cabin about a short quarter of a league, to instruct the savages and Christian neophytes of that town. It was on the 16th day of March, in the morning, that we perceived a great fire at the place to which these good Fathers had gone, etc."

Christophe Regnaut, at the time of the occurrence he describes, was one of the hired men attached to the Fort of Ste Marie I. Francois Malherbe, of whom mention has already been made, was one of his companions Born in 1613, he was then thirty-six years old. How long he had been at the Fort is not known; but a number of hired men had come up from Quebec the previous year. He left Ste. Marie I. with all the others, the year of the massacre, and, in 1650, he returned to France where he became a lay-brother. Twenty-nine years after the occurrence, and when he was sixty-five years old, he

*St. Denis is also correctly marked on the map, and the same reasons exist, as for St. Jean, for not crowding it out of place. Ducreux's inset map gives us approximately the direction from Ste. Marie I. to Ste. Anne (Kaõtia, i.e., Kaontia) and to St. Denis, which is south-east. The remains of two Indian villages have been found quartered in the same direction, one on east half lot 9, con. III., Tay, the other on west half lot 3, con. V., Tay. That Ste. Anne lay one league from Ste. Marie I., is an inference forced upon the reader after confronting two passages from the Relations, viz, *1640, p. 70, col. 1, line 10 et ss.*, with *Id. p. 54, col. 2, line 30 et ss.* As may be seen on the inset map, Kaontia lay between Ste. Marie I. and Hogg River, while St. Denis lay to the east of that stream. In *Rel. 1740, p. 71, col. 2, line 13 et ss.*, following close on a record of the occurrences at Ste. Anne, it is said that the other villages of the mission (three in number and among them St. Denis) were further from Ste. Marie than was Ste. Anne, which, as we have seen was distant one league. All these particularities find their counterpart, respectively in the village sites of east half Lot 9, con. III. (Ste. Anne), and west half Lot 3, con V. (St. Denis); the former lying a short three miles, and the latter a very little over five from the Old Fort.

wrote the account of the martyr lom of Brébeuf and Lalemant which is embodied in the letter. Consequently he had reached a period in life when memory often turns traitor in the matter of distances, dates and names—*experto crede Roberto.* So it need be no matter of surprise if through the haze of nigh on thirty years, one all but faded name should be mistaken for another, and topographical outlines should have become blurred.

If the words *notre cabane,* in the passage quoted, really stand for Ste. Marie I., with its stone fort, its public chapel, its hospital within the palisaded enclosure, all taken together—then, not only is the passage inexplicable in itself, but it is absolutely irreconcilable with all the statements of serious men who recorded events at the time they were taking place before their eyes. Had Regnaut said "un petit bourg nommé St. Louis" it would be less incomprehensible, for, though the measure of distance given is at variance with all other estimates, still, St. Ignace II. would have found its place three miles further on. But by placing the little bourg of St. Ignace II. at a spot less than three-fourths of a mile from Ste. Marie I., the village of St. Louis, which, everyone knows, lay between the two, is entirely crowded out.

Should we, on the contrary, take *notre cabane* to mean some unpretentious shelter erected, let us say, a short quarter of a league from St. Ignace II., towards Sturgeon Bay, for the convenience of the hired men, like a cabin in a sugar-bush, a woodcutter's hut, or a deer stalker's box, then, with a little ingenuity, and without doing violence to the context we may read some sense into the passage.

For instance, we have but to take the opening sentence down as far as "it was on the 16th day of March etc.," exclusively, as a preamble, giving us to understand that some days previous, while going their missionary rounds, the Fathers had called in at the "cabane" on their way, it matters little,either to St. Ignace II. or to St. Louis. But before the eventful morning of the 16th the Fathers on their side had betaken themselves to St. Louis, while Christophe Regnaut and the others had returned to the Fort. All that follows in the narrative would fit in with this interpretation without the least straining or wrenching. The very form of the phrase "It was on the 16th day of March, in the morning, that we preceived a great fire, etc" suggests the idea that the fathers had left the "cabane" some time before, but that it was not until the 16th that the fire was noticed.

If this explanation is deemed far-fetched, then all that remains to be said is that Brother Regnaut in this particular was simply mistaken.

Theories tested by Local Observation.

Before setting out from Coldwater, on August 15, 1902, in company of Father Nicholas Quirk, S. J., Mr. J. C. Brokovski, barrister, and solicitor of the village, and Mr. George Hamilton (both the latter having been my companions, together with Father J. J. Wynne, S. J., in a like expedition three years previous), I was in possession of all the foregoing data concerning distance and direction. So confident was I of the soundness of the inferences drawn from the scraps of information gleaned from Bressani, Charles Garnier, Malherbe's Obitu-

ary, Ducreux's Maps and the Relations, that, taking for centre a point within, and not far from, the S. E. corner of lot 3, con. VII., with a radius of one mile, I traced on the map of Tay township a circle two miles in diameter. It overlapped the townline, taking in the N. W. corner of lot 24, con. VIII.,* and the N.E. corner of lot 24, con. VII., Medonte township; and, in the township of Tay, the greater portion of lots 1, con. VII. and VIII.; the entire lots 2, 3, 4, con. VII. and VIII.; the greater portion of lots 5, same two concessions; and, finally, just the eastern ends of lots 2, 3, 4 of con. VI. If within this circle *one spot only* could be discovered, answering perfectly to the description given in Bressani and in the Relations, one might conclude indubitably that the place was none other than that once occupied by St. Ignace II.

I left ash beds, the most reliable indication of Indian occupancy out of the count; for, plainly discernable as they are, even for years after the plough has passed over them, there where villages had stood for ten, twelve, or fifteen years, it was not to be expected that such would be the case with the site of St. Ignace II. The life of the village had been too short. Two partial disasters had befallen its braves, following one on the other at an interval of a few days only (*Rel. 1648, p. 50, col. 2. line 41*), the first of which had occurred "towards the end of this winter" (*Id. p. 49, col 2, line 38*) and forced the inhabitants to move to some other site more out of reach of the enemy and nearer Ste. Marie I, (*Id. p. 51, col. 1, line 1*). As this relation, 1648, was sent down to Quebec from the Huron Country, April 16th, 1648 (*Id. p. 45, col. 1*), the words "towards the end of this winter" must point to the interval between Feb. 1 and April 16—say, sometime well on in March. Now, St. Ignace II. was surprised and sacked, March 16, 1649, so that the site could have been occupied one year only. Two hundred and fifty-three years of winter snows, spring thaws, with summer and autumn rains, would amply suffice to wash away any accummulation of ashes from the lodge fires of a twelvemonth.

On the other hand, I had seen recorded a very significant particular in one of Mr. Andrew F. Hunter's pamphlets, most valuable archæological repertories for one in search of a catalogue of those township lots, within the limits of Tiny, Tay and Medonte, which have yielded unmistakable evidences of Indian occupancy. On the farm of Andrew Brown, west half lot 4, con. VII., Tay, many iron tomahawks had been found. John Moad, who had first cleared the land, picked up no end of them, the number in his possession varying; for, it is said that his shanty was sometimes covered with them, fifty or more laying on its roof at one time (*Monograph on Tay p. 30. No. 26*). Some few relics of the kind were also found on Ira Hazelton's farm, across the concession road, that is, on east half lot 4, con. VI.

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*It was on this spot on the map giving the "Theoretical, Reconstruction of Huronia", which I contributed, in 1898, to Mr. Reuben G. Thwaites' re-issue of the Relations, that I set down St. Ignace II., a little over a mile and a quarter too far south-east. I had stretched the distance of St. Louis from Ste. Marie from three miles, as given in the old records, to three miles and two thirds, and, correspondingly in the same proportion, the distance of St. Ignace II. to St. Louis. This was done out of deference to Ducreux's map, where St. Louis is shown lying east of Hogg River.

The presence of hatchets in such numbers, scattered over the surface of the ground, was a sure indication that the spot was once the scene of conflict between savage tribes. As the weapons fell from the relaxing grasp of the dying brave they were trampled beneath the snow. The spring came, and the rank weeds or the fronds of fern, in forest and glade, shrouded them from the sight of the prowling savage, until they lay securely buried beneath the decaying leaves of two centuries and a half of recurring autumns.

I candidly acknowledge that my hopes of finding what had been anxiously sought for during the last fifty years, namely, the spot which had witnessed the martyrdom of the two heroic missionaries, Jean de Brébeuf and Gabriel Lalemant, were centered on this lot 4, con. VII., Tay. In consequence, the programme of the day's outing was so arranged that an inspection of the locality was to be made as early in the forenoon as possible.

With this in mind, we shaped our way westward from Coldwater, on the old Sturgeon Bay Road, and soon our double carriage was lumbering up the eastern declivity of Rosemount Ridge. At the XI. concession we struck the townline between Medonte and Tay, which we followed in a south-westerly direction as far as the concession road running north-west between VI. and VII. This ground Father Wynne and myself had already gone over twice, in May 1899, but with unsatisfactory results, owing to a drizzly rain which not only had dampened our enthusiasm somewhat, but had shut out effectively all view of the hills any considerable distance away. But on this occasion a kind Providence favored us with delightful weather, cool for August, and with an atmosphere of faultless transparency.

We could take in all the outlines of the distant hills and every break in the ground in our nearer surroundings. There were possibilities in lot 20, concession VIII., Medonte, which were noted for further inspection should our attempts at discovery among the more north-westerly sites prove abortive. To class it among the probable sites of St. Ignace II. was, I know, to stretch the measure of distance, reasonably elastic, to its utmost limit.

Lots numbered 1 of concession VI. and VII., including John A. Swan's farm showed no favourable feature. Entering on the concession road between VI. and VII. and moving north-westwardly we passed without stopping Daniel Chambers' on the right and Hector McLeod's on the left—lots 2 in VI. and VII.—as their appearance gave us little encouragement. Lot 3, concession VI., the farm first cleared by Mathew Campbell, Sr., and lots 3, concession VII., that of the late John Campbell, brother of Mathew senior, were just as unpromising.

We were still working within the two-mile circle, and had yet to visit two sites fronting on this concession line, one of which was on the farm of Andrew Brown, west-half lot 4, concession VII., where so many tomahawks had been found, so that we were not at all dispirited by our failures so far. But it was precisely here that a great disappointment awaited us. We drove well into the farm, and though alighting, when we could penetrate no further unless on foot, we so extended our investigations as to be able to form a perfectly correct idea of the lie of the land, we recognized no single feature of resem-

blance to the descriptions given of St. Ignace II. For a similar reason, the farm of Ira T. Hazelton, lot 4, concession VI., was alike barren of results.

Of course there yet remained for our inspection five sites, whose approach must necessarily be made by the concession line between VII. and VIII.; but since, at the point we had reached, we were more than half-way to the site of St. Louis, we determined to push on, and take in the unexplored portion of the circle on our return.

The itinerary lay north-west, by the same concession road we were on, as far as the side road between the lots 5 and 6, concession VI. over which we passed; thence again, north-west by concession line between V. and VI., to side road between lots 10 and 11, into which we turned to the N. E., and entered Mr. Charles E. Newton's farm, west half lot 11, concession VI. We examined carefully the eastern bank of Hogg River, facing the defensive position of the Indian village site. The verdict, unhesitatingly given, was, that even were this village at the proper distance from Ste. Marie I., it could not claim to be *powerfully fortified* by nature, though the slope towards the stream, abrupt in some places, and extending to three sides of the position, would contribute materially to strengthen its defences. Nor could it be, as St. Ignace II. was said to be, *impregnable* by its site and fortifications.

It was now getting well on into the afternoon, so putting off for the nonce a more searching examination of the western bank of the river, we repaired by the side road between lots 10 and 11 to the foot of a high plateau, which, beyond the middle of concession V., barred further progress. Here man and beast, amicably picnicing together in the shade, were refreshed. Thence we returned to the concession line, up which we drove for a short distance till fairly opposite the site. After proceeding on foot to the very edge of the slope on the west bank, and having taken into consideration all the possibilities of the locality we confirmed our former verdict. The ultimate conclusion arrived at was, that we were standing on the site of St. Louis, the spot where Brébeuf and Lalemant had been taken by the Iroquois while engaged in ministering to the dying Hurons

Entering once more the side road between lots 10 and 11, in concession VI. and VII., and heading in a north-easterly direction, we remarked, for we were driving leisurely, the contours of the high ground where Indian remains had been found on four farms, viz., east and west half lots 10 and 11, in concession VI. and VII. Soon we neared the shore of Sturgeon Bay, with Waubaushene and Tanner's Mill well in sight, and turned S.E. into the road between concessions VII. and VIII.

The view of Mr. John Hamilton's farm seemed full of promise, as we toiled up the hill approaching it, but it lay a mile from the circle. Our most obliging driver, George, is the son of the present occupant and owner. He "gave a lift" to some of his little relatives on their way to the homestead, and was only too glad to have an opportunity of introducing us to his repected parent. The father, in turn, gave us all the information he could. We went over the farm, but found, alas, that it did not tally with the description in the old records.

Out once more upon the road, we continued along the same concession line and in the same direction, S.E. We had not made much headway, laboring slowly up the long ascent, when there loomed, high ahead of us, a long even eminence, crowned with a level field of golden wheat, and lit up with a gleam of sunshine against the blue sky beyond. The tableland extended back till it blended with the plateau to the west; but to the north-west the ground fell away sharply towards the highway, as it apparently did also on the side facing us.

We were now on a level with two sites, one on either side, east half lot 5, concession VII., occupied by Mr. William Hopkins, and west half lot 5, concession VIII, of which Mr. Arthur Loney is the proprietor. Neither could lay claim to distinction of any kind, and, both were, moreover, dwarfed by the site so conspicious ahead.

Our expectations ran high—but were we to be again disappointed? If so, there was little chance of success further on, for evidently the three succeeding sites, in close proximity—the only ones of the circle remaining unexplored—would be overtopped and commanded by the prominence that filled our vision. As well as we could judge, from our position, of the configuration of the ground, two sides answered the description. One facing the north-west was fully in view. The second, on the north-east, of which we could see but one profile, sloped precipitately towards the road, and beyond it, with a rapid fall, stretched down the valley to Sturgeon River a mile away. On these two sides it was certainly *powerfully fortified* by nature. But of the third side it was impossible yet to tell. If the precipitous descent towards the N.E. should skirt the road for any considerable distance, the configuration of the ground would not be that of St. Ignace II. Our suspense lasted until we were well abreast of the position, when to our great relief we plainly saw that the high land sheered off abruptly towards the S.W. A description of this part of the Campbell farm, lot 4, concession VII., for such it turned out to be, would be an exact replica of the description given by Father Paul Ragueneau, in the Relations, and confirmed by Bressani.

We were so thoroughly convinced that the spot found was in reality St. Ignace II., that we did not even alight; calmly elated, and content beyond measure, in view of the result of our day's wanderings, we decided to proceed on our way back to Coldwater while the sun was yet above the horzion. But we were resolved to return the following morning the better to examine the ground and enjoy fully the satisfaction to be derived from the certainty of our discovery.

It was not until we had returned to Coldwater, and had already gathered for a quiet chat on the various incidents of the day—not all of which have found place in this account—that we became aware of one oversight. One final corroborative fact, pointing to the identity of the Campbell farm (lot 4, concession VII.) with the site of St. Ignace II., had escaped or notice; no doubt because we were too full of our find, at the time, to think of much else. Moreover it proved an ample compensation for our keen disappointment of the morning, for it showed that, in our forenoon researches, we had not gone much astray.

The fact which had remained unnoticed was simply this : The farm of Mathew Campbell, Jr., and that of Andrew Brown were contiguous ; they were east and west halves of the same lot. No wonder, therefore, that so many tomahawks were found on the latter, the only approach on the level to the gates of St. Ignace II. We are told in the Relations that it was through the weakest part of the enclosure that the enemy forced an entrance ; that is, as we now know, through the line of palisades facing southwest. For many of the villagers, if not for all, this was also practically the only way of escape.

The Iroquois were clever strategists. In all likelihood they foresaw that many would escape through the opening in the stockade in the confusion and turmoil of the fearful slaughter going on within. Reserve bands would have been posted on that part of the plateau to intercept the fugitives, and bear them down, by weight of numbers, before they could reach the sheltering forests. There was no concerted action in the defence. The terrified Hurons, who had escaped butchery in their wigwams, sought safety individually, after having snatched up the first weapon at hand, the tomahawk. Numbers, no doubt succeeded in reaching the open, but only to meet with capture or certain death beyond the enclosure. How thoroughly the bloody work was done by the implacable Iroquois is evinced by the fact that three only escaped half-naked through the snows.

On the morrow, Saturday, August 16th, an auspicious day, our party of four returned by the shortest route to lot 4, concession VII., the farm of Mathew Campbell, Jr., and, by the gracious leave of the proprietor, proceeded forthwith to make ourselves better acquainted with the salient features and main outlines of the tableland,or plateau, on which the old town was perched. No site could have been better selected, none more capable of a vigorous defence. Given the usual and necessary adjuncts of any fortified position, Bressani's one word " impregnable " is the fittest to convey an idea of its strength.

Its strongest side was that facing the present road, where the slope toward the concession line is broken midway by another terrace before reaching the highway, rendering possible, on that side at least, a first line of defence, in full view and commanded by the second on the crest of the hill. On the two other sides, one facing the north-west the other the south-east, the escarp gradually becomes less precipitous. Towards the south-west the position offers no natural advantages ; but, with the other sides secure, it could have been made to present quite a formidable front, with converging, flanking fires (*) provided for in laying down the line of the palisades.

This part of the farm has, to all appearances, been a long time under cultivation, and for that reason, no doubt many of the sharper lines have been rounded off by plough and harrow, or by the washing down to the lower level, by rain falls, of the upturned soil along the slopes.

(*) The Fathers had shown the Hurons the advantage in fortification of bastion, gorge and curtain. I find the following example of the use of the adverb *Vis-a-vis* in Father Potier's Huron Grammar (p. 72 1. col. midway) : *Etiontenroketas d'eeias*, en tirant v. g. d'un bastion, on aura vis-a-vis ceux qui seraient le long de la courtine. . . . . on rasera toute la courtine en tirant. . . . . ab *oketi* tirer droit"—"in firing v.g. from a bastion, those along the curtain will be in front of you . . . . the curtain will be swept in firing. from *oketi* to shoot straight."

We could not without serious damage to the standing grain attempt to reach the very brow of the hill where the declivity is steepest, but from where we stood we had a commanding view of the Rosemount Ridge, towards the east and south-east, and the eye plunged deep into the sombre valley of the Sturgeon that lay at our feet.

As a look-out for the child of the forest, grown familiar with the ways of the wilderness, and with his keen vision, sharpened still more by his every-day contact with nature in her every mood, the site of St. Ignace was a near approach to the ideal. And had it not been for the innate apathy of the Huron, of which Brébeuf time and again complained, St. Ignace, instead of falling an easy prey to the enemy, might have proved the bulwark of the nation. But he lacked the vigilance of the Mohawk and the Seneca, and paid dearly for allowing himself to be lulled into the quietude of a false security.

Turning towards the north and north-east, the eye ranged over the waters of Sturgeon Bay and the greater Matchedash, and took in a wide stretch of country in the Muskoka district, while, a little further east, it swept over Gloucester Pool, the mouth of the Severn and no small extent of the North (or Black) River Valley. But all these local advantages, as rehearsed above, all the charms of the panorama, which unfolds itself before the gaze of one standing on the site of St. Ignace, might well be dismissed from thought with a passing note of admiration, were not memories of a far higher order of excellence woven round it. Vastly grander visions of the beautiful and sublime in nature are to be met with within the confines of this great Dominion, and in an endless variety of kind, from the beetling crags of Trinity Rock, the towering mass of Cape eternity on the Saguenay, to the fairy scenes of enchanting beauty in the Islands of the St. Lawrence: from Niagara, with its deafening roar of waters plunging to depths unknown, to the silent solitudes of the Selkirks, whose glittering peaks cleave the very clouds above—all these and others, surpass it immeasurably either in majesty of outline or in perfection of detail.

But no spot on the wide expanse of this continent was hallowed by a nobler sacrifice for the Master than was consummated on this hill-top a few acres in extent, and which lay for two centuries and a half lost in the recesses of the forest. There where we were standing, stood, long since, two Christian heroes whose life ebbed slowly away amidst unspeakable torments. Unlike the martyrs of old who stood in the great amphitheatres of Rome, awaiting death from the wild beasts of the arena, they had no friends among the onlookers to encourage them by voice or gesture. They stood alone in the wilderness of the New World with a few neophytes, sharers in their sufferings, among a howling band of savages, more ferocious than lion or leopard. And as the flames curled round their blistering and lacerated limbs, the smoke of the sacrifice ascended as sweet incense to the throne of the Eternal.

II.

Discovery of Ekarenniondi or the Standing Rock of the Petuns.

It was said in the beginning of these notes that the second satisfactory result of last summer's researches was the finding of the "Rock that Stands Out," or the "Standing Rock," *Ekarenniondi*, from which the Petun village of St. Mathias took its name; the position of which was to furnish us with a clue to the whereabouts of *Etharita* or *St. Jean*, another Petun village, where Father Charles Garnier was massacred.

Great as are the difficulties which beset the chartographer of oldtime Huronia in his attempts at reconstruction, they take on the proportions almost of an impossibility when he turns his attention to the region once occupied by the Petun or Tobacco Nation. There is in the former task an all-important, helpful element entirely wanting in the latter, that is to say, a starting point, or landmark, whose position on the map is determined beyond all dispute, namely, Old Fort Ste. Marie I. What Ste. Marie I, is for the chartographer of the Huron country, *Ekarenniondi*, once determined with certainty, would be, and would stand him in the same stead, in mapping out the home of the Petun. And though the available data are much more scanty than when there is question of locating the Huron villages, one very desirable result at least may be achieved in finding the exact site of *Etharita*, which contains the yet undiscovered grave of its devoted missionary. (*Rel. 1650, p. 10, 1 col*).

Two Mutually Supplementing Passages.

For information we naturally turn to the old records. In the Relations *Ekarenniondi* is not mentioned in connection with the village of St. Mathias; but Charles Garnier, in a letter to his brother, dated April 25, 1648, gives us the following particulars:—

"My Superiors have sent me with one of Ours, named Father Garreau, to a new mission (in the Petun Nation), which we have called the Mission of the Apostles. . . . Fr. Garreau is to instruct the Algonquins and I, the Hurons. . . . Wherefore we both took up our station in a town made up of Hurons and Algonquins. . . . The devil brought about a rupture between the Hurons and Algonquins by means of a murder. . . . It was an Algonquin who was slain . . . The Algonquins blamed the Hurons, and then withdrew from the village called *Ekarenniondi*, where they had been living together, and joined another Algonquin nation two days journey from *Ekarenniondi*. . . . Since last summer Fr. Garrea and myself have concluded to concentrate our efforts principally on two Huron towns, which are four leagues apart, the one named *Ekarenniondi*, dedicated to St. Mathias, the other *Etharita*, dedicated to St. Jean l'Evangéliste." (*Contemporaneous M.S. copy p. 99; Recent copy p. 84, St. Mary's College Archives.*)

On the other hand, in the Relations, though the Indian name is not associated with any town, it is, with a certain rock standing on

the confines of the Petun Nation. I translate the passage from Brébeuf's Relation, dated, Ihonatiria, July 16, 1636 :—

"One day I asked one of our savages where he thought the village of the [departed] souls was. He answered that it lay in the direction of the Petun Nation, that is to say, towards the west, eight leagues from us, and that some had seen them as they journeyed on; that the road they followed was wide, and pretty well beaten, and that they passed near a rock which they [the Hurons] called *Ecaregniondi*, which is often found embellished with the paint with which they are wont to daub their faces." (*Rel. 1636, p. 105, 1 col., Quebec edition; Vol. 10, p. 145, Cleveland edition.*)

Two Forms of the same Word.

In Garnier's *Ekarenniondi* and Brébeuf's *Ecaregniondi* we have two names resembling each other in sound sufficiently to awaken conjecture as to their identity, yet sufficiently unlike orthographically to preclude this, their identity, being taken for granted. A word or so of explanation will not, therefore, be out of order.

Brébeuf, in writing for those unfamiliar with the Huron language, always wrote the word so that it would be pronounced correctly by a Frenchman, or as nearly so as possible. Garnier, in the present case, wrote the word as it should really be written. If we consult Potier's rules on the pronunciation of the Huron letters (*Grammar p. 1*), we find this direction under the letter "i": "Si coalescit in unam syallabam cum præcedentibus vel *d*, vel *t*,vel *k*, vel *n*, et *i* sit purum [i.e. followed by another vowel], fit quasi liquefactio in pronuntiando, v. g.: *andia* [initial *a* with iota subscript] dic *iaŋguia* ; *hatatiak* loquitur, dic *hatakiak* . . . *eaŋnionk* [both initial vowels with iotas subscript] je fais chaudière, dic *iëiagnionk*, *gn* ut Galli agneau ; *onnianni* bene, dic *ogniandi* vel potius *ongiandi*."

In *Ekarenniondi* the first "i" is preceded by an "n" and followed by another vowel, hence the proper pronunciation will be "*Ekaregniondi*, the "gn" being liquid as in the French word *agneau*, lamb.

As for the difference in the spelling of the second syllable it is more apparent than real,the *c* in *car* being hard,while we are informed by Potier (Gram. p. 1) that "k et χ" [Greek chi] sonant ut kh, v. g. χ a, hic, hæc, hoc, dicitur Kha."

Meaning of the Word.

As most Indian names are descriptive, we are prompted by sheer curiosity—which, however, may take a practical turn—to look up its signification. Here again we find two forms, for both *Ekarenniondi* (with a diminutive *d* over the second *n*) and *Ekarendiniondi* are given. The former is to be found in the shorter list of Huron roots in Potier's Grammar (*p. 143, 1 col. No. 80*) as the first derivative from *iondi* ; the latter, in the more exhaustive catalogue, compiled in 1751 by the same author (*p. 237, No. 28*), where it also is given as the first derivative from *iondi*, which latter occurs only in compound words. The meaning is "être étendu, s'étendre, s'avancer en pointe, en long" to be extended, to stretch out, to project or stand out in a point, in

length ; though *iondiati*, with a diminutive " g " over the " d ", is set down separately as meaning " étendre en long " to extend in length.

The compound word is translated " là où il ya une pointe de rochers qui s'avance " there where there is a point or rocks which projects or stands out.

Through the kindness of the Abbé Lindsay, of Quebec, I had the good fortune some time ago to have at my disposal for a few hours the French-Huron dictionary, belonging, I believe, to Rev. M. Prosper Vincent, of Charlesbourg. Under the word " Pointe " I found " *iondi* in compositione, *Ekarenniondi*, à cette pointe de roche " at that point of rock. And I take it that peak, pinnacle, or spur of rock, would be quite in keeping with the sense.

Derivation of the Word.

Now should we wish to try our hand at decomposing *Ekarenniondi*, which is a word compounded of *Ἐχα, ârenda* (initial *a* with a circumflex accent and an iota subscript) and *-iondi*, the meaning is rendered, if possible, clearer still.

Ἐχα, an adverb of place, which is translated by Potier Gram. p. 68, 1 col.) " hic, huc, hac, hinc, " here, hither, in this place, hence.

" *Arenda*, rocher, roc " (*Radices Huronicæ, Potier, 1751, Pg. 292.*)

-iondi (Gram. p. 143, 1 col., No. 80, and Rad. Hur. 1751, p. 237) with the meanings already given above.

Consequently *Ἐχα-ârenda-iondi* would mean " Here the rock stands (or juts) out." In accordance with the rules given by Potier (Gram. p. 66), it is reduced to its proper form :—" R. 1., Substantivum semper præit. R.2, Ultima vocalis substantivi perit, et consonans adjectivi vel verbi [verb], quæ initialis est, eliditur ; sive (quod idem est) perit vel ultima primi verbi [word] littera, vel prima littera secundi verbi [word] ".

Ἐχ(a)arend(a)iondi, Ekarendiondi, which, as we have already seen is the equivalent of *Ecarenniondi* or " The Standing Rock."

Having thus satisfied ourselves that Brébeuf and Garnier were using the same word : and recalling the fact that, as a general rule, names of Indian villages are suggested by some topographical feature, or by some historical event, which has rendered the place famous ; we cannot help coming to the conclusion that the site of St. Mathias or at least its immediate vicinity, is marked by some monumental rock ; a rock of exceptional formation, something out of the common, remarkable enough to strike the fancy of the Savage ; a rock jutting out of a bank, projecting from a ledge, rising from the bed of a stream, or standing erect in the open campaign ; a landmark, in fine, unique in the neighborhood.

The next thing in order would be to enquire if there were not to be found somewhere on the confines of the Petun country a rock of that description. But we are confronted here by a serious difficulty. Where was the Petun country, and what was the position of *Ecarenniondi*, or St. Mathias, relatively to the other Petun villages ?

Position of the Petun Country.

It is not necessary to recapitulate here the opinions of modern authors with regard to the position of the Petun country ; all are sub-

stantialy correct. The divergence, where it exists, arises from some writers circumscribing within too narrow limits the region occupied by that nation In general terms the Khionontateronons* extended westward all the way from the Blue Hills, in the western part of Nottawasaga township (Simcoe County), to the shores of Lake Huron proper, and northward to Cape Hurd, taking in approximately what now constitutes Grey and Bruce Counties. The Algonquins, however, mingled freely with them, and reared their temporary cabins anywhere along the coast line from Nottawasaga Bay to the mouth of the Saugeen. They took up their abode even in the permanent villages of the Petuns.

This rather scant information may be gathered without much effort from the Relations and from Ducreux's general map. Of the nine villages enumerated in Relation 1640 *(p. 95, 1 col.)*, and which were visited at that time by Fathers Isaac Jogues and Charles Garnier, two only are set down by Ducreux; that of St. Pierre et St. Paul, situated, I should say, to the east of, but near Saugeen River, and not very far from its mouth; the other of St. Simon et St. Jude, on a little bay on the north shore of St. Edmund township, Bruce County. The remaining seven, viz.: St. André, St. Jacques, St. Thomas, St. Jean, St. Jacques et St. Philippe, St Barthélemy and St. Matthieu, are apparently ignored. At that date, 1640, the town of St. Pierre et St. Paul was the furthermost and the principal one of the district allotted to the two missionaries, while St. Mathias is not mentioned in the Relation. Nine years after, that is in 1649, St. Jean is mentioned as the principal centre, *(Bressani, p. 263)*.

With the exception of what refers to the villages of St. Mathias and of St. Jean, and what has already been said of St. Pierre et St. Paul and St. Simon et St. Jude, there is scarcely a shred of evidence which could possibly be turned to account in locating any of the other villages whose names have come down to us. I say, scarcely a shred, for there are some all but hopelessly vague indications bearing on the positions occupied by St. Thomas and St. Matthieu. It would unduly lengthen this paper were I to discuss them at present.

The Eastern Boundary Line of the Petun Country.

The missionaries themselves, whatever may have been the cause, are not at one in estimating the distance from Huronia to the country of their western neighbours, as the following summary will show:

Brébeuf, (Rel. 1636, p. 105, 1 col.), gives the distance as "eight leagues from us." His relation is dated from *Ihonatiria*, July 16, 1636. Now twenty-four miles, taken in a straight line, would not reach from the site of old *Ihonatiria* across Nottawasaga Bay to the

**Etymology—Chi-onnonta -ronnon.*

"*Chi*, loin (Potier, Gramm. p. 91) expressing distance, site, point of time etc. *Chi* au delà [beyond] vel *echi, chi a8atenrati*, trans murum [beyond the wall, the palisade], *chiaanda8ati*, de l'autre côté de la rivière [beyond or on the other side of the river] etc."

"*Onnonta (atennonta)* montagne [mountain]" *(Potier Rad. Hur. p. 291, 2 col.)*

"Ronnon" (nomina Nationalia, Potier, Gr. p. 65, No. 7). "Nationalia formantur a nomine proprio addendo *ronnon* v.g.: *annontae, onnontaeronnon*, les habitants des montagnes" (the mountain dwellers).

Consequently *Khionontateronons* would mean *those that dwell beyond the mountains.*

present town of Collingwood. Twenty-nine or thirty miles would about suffice. If by "from us" he means from *Ossossané*, which was really the starting point of the Hurons going to the Petuns: then the twenty-four miles would reach around the Bay to a point beyond Duntroon, or if taken in a more northerly direction, almost to lot 30, concession XI, Nottawasaga township.

Le Mercier, (Rel. 1637, p. 163, 2 col.), writing from *Ihonatiria*, June 21, 1637, says, ". . . . the Petun Nation, which is two days' journey from us." According to a passage in Rel. 1641, *(p. 71, 2 col.)*, four or five days' journey is about forty leagues. That would be ten leagues a day, if the journey was made in four days, and, if in five, it would be eight leagues a day; so that Le Mercier's estimate would be from sixteen to twenty leagues, or from forty-eight to sixty miles.

Chaumonot (Autobiographie, Edit. Paris, 1885, p. 94), in speaking of the Petuns says that they were "A nation which was situated eleven long leagues from our dwelling." He resided at that time at *Ossossané*. *(Ib. p. 93; cf. also Rel. 1641, p. 71, 2 col.)* This would mean, I suppose, thirty-four or thirty-five miles.

Bressani (Martin's French Translation, p. 62) places them further: "Towards the setting sun" he says, "on the shores of this lake [Huron] there exists a nation which we call the Petun [Tobacco] Nation because it raises an abundance of that plant. It lay but thirty-five or forty miles from us." And again *(Ib. p. 254)*, referring to the fugitives from the Huron villages destroyed in 1649, he writes: "Women and children and many aged men who had reached their hundredth year, journeyed the whole night long on the ice, intent on reaching the country of the Petuns, more than forty miles away."

Jerôme Lalemant (Rel. 1640, p. 95, 1 col.) has this to say: "The *Khionontateronons* called the Petun [Tobacco] Nation, on account of the abundance of that plant produced in their country, lie towards the west, and are distant about twelve or fifteen leagues from the country of the Hurons, whose language they speak. Formerly they waged cruel wars against each other, but they are now on very good terms, and but a short time ago they renewed their alliance. Moreover, they formed a confederation against some other nations, their common enemies." The letter is written from the Huron county without indicating any particular place.

It will be well, for convenience sake, to tabulate these estimates:

Distance of Huronia from the Petun Nation.

Authority.	*Leagues.*		*Miles.*	*Starting Point.*
Le Mercier	from 16 to 20	or about from	48 to 60	Ihonatiria
Brébeuf	" 8 " 8	"	24 " 24	?
Bressani	" 11⅔ " 13	"	35 " 40	?
Jer. Lalemant	" 12 " 15	"	36 " 45	Huronia
Chaumonot	11 (long leagues)	"	34 " 35	Ossossané

In striking an average LeMercier's estimate may be set aside since it evidently had *Ihonatiria* for its *terminus a quo*; and even in this supposition it is a high estimate if there were merely a question of the distance to the confines of the Petun country. Sixty miles

from *Ihonatiria* (Todd's Point) taken around the head of Nottawsaga Bay would land us near the point of junction of the four townships of Holland, Euphrasia, Artemesia and Glenelg, in Grey County. Forty-eight miles would reach a little beyond the middle of Osprey township. The average of the four remaining estimates would be from thirty-two and a quarter to thirty-six miles; half the sum of which is thirty-four and one-eighth.

With *Ossossané* (near Point Varwood) as a starting point, twenty miles of the thirty-four and one-eighth, in a sweeping curve around the bay, would bring us to concession IV., Nottawasaga, on the Duntroon road just beyond Stayner. Taking this point as a centre, and the remaining fourteen and one-eighth miles as a radius, the arc traced would, according to the average of the above estimates, represent approximately the eastern limits of Petun territory. I have no doubt now that this line is from five to seven miles too far west, for through the curve, roughly speaking, may be said to be parallel to the trend of the eastern slopes and ridges of the Blue Hills, it is that many miles west of it.

The appositeness of the last remark lies in the fact, that whenever these "Mountains" are mentioned in the old records they are spoken of either as the Mountains of St. Jean or as the Mountains of the Petuns. "A prisoner," says Bressani *(p. 263)*, "who had escaped from the enemy's country, came in and warned us of the project they had formed of invading either our island [Christian Island] or else the Mountains of St. Jean." So also the Relations: "As the inhabitants of the Huron towns dispersed they followed different routes in their flight: some threw themselves into the mountains which we call the Petun Nation, where three of our Fathers laboured last winter in three different missions; others betook themselves to an island, etc." (*Rel. 1649, p. 26 2 col*). The impression left after reading these passages is that the Blue Hills were, on the side facing the Hurons, conterminate with Petun territory.

*Position of Ekarenniondi or St. Mathias Relatively to St. Jean or Etharita.**

It is beyond the eastern line of the Blue Hills, if what precedes is to be taken into account, that one must look for the village sites

* Etymology: e-tho-ariti-a, *Etharita.*

"*Tho, 0o là*, ibi, in eo loco sine et cum motu, v.g.: *t'ahourhon*, là où ils sont reposés, *tho eret*, il ira là" (*Potier, Hur. Grammar pp. 103, 104.*)

"A" denotes number, quantity, size, value, etc.; "*a* in compositione sequitur suum simplex, v. g.: *chi cannen iandatsa* c'est une grande chaudière." (*Rad. Hur. 1751, Potier. p. 1.*)

"*Ariti* faire cuire on mûrir quelque chose" (to have something cook, ripen, etc.). (*Rad. Hur. 1751, p. 185.*)

Consequently we have *tharita*, conformably with the rules to be observed in compounding words, already quoted above. The idea of stability or perpetuity is now added by means of an initial "e". See "Variae significationes particularum *ti, sti, k8i*, etc." (*Potier Gram, p. 81.*) These particles are suffixes, but under note 4 we find "Significant perpetuitem cum "e" initiali; v. g.; *eochrati* perpetua est hyems, etc." The suffix *ti* does not modify the final *ta*, which conveys a sense of its own; but the initial "e" imparts to *tharita* its final form *Etharita*. with the meaning "The ever principal drying or maturing place," referring, no doubt, to the ripening and curing of tobacco, the staple product of the country.

of the Tobacco Nation, at least as it existed at the time the Fathers were evangelizing the Huron tribes. The two villages that hold out most hope to one bent on discovery are those of St. Mathias and St. Jean, whose Huron names, as we have already seen, were respectively *Ecarenniondi* and *Etharita*. In the same passage of Garnier's letter from which this information is derived, we are told that they were four leagues apart.

These same villages were the chief towns of two distinct clans. "Having received," writes Father Paul Ragueneau, in his Relation of 1648 (*p. 61, 1 col.*). "a pressing invitation from those known to us as the Petun Nation to undertake their instruction, we sent them two of our Fathers who are now engaged in two missions established among the Indians of two distinct tribes. We have given the name of Mission of St. Jean to the Wolf tribe, and the name of St. Mathias to the other which styles itself the Deer tribe."

As to their relative positions, we learn with certainty from the Relation of 1650 (*p. 8, 1 col.*) that St. Jean lay in a southerly direction from St. Mathias. If we bear in mind that the nearest of the Iroquois Nation lay to the south, the wording of the Relation is not ambiguous. "In the mountains which we call the Petun country, we had for several years two missions, in each of which two Fathers were stationed. The one nearer the frontier exposed to the enemy was that of St. Jean, the principal town of which bore the same name, and comprised about five or six hundred families." It lay also, in all probability, a little to the west; for had it been situated due south, and with more reason if to the south-east, it is not likely that Father Noël Chabanel would have passed through St. Mathias, as he did (*Rel. 1650. p. 16, 1 col.*), when he was endeavouring to obey an order to return from St. Jean to headquarters, then established at St. Marie II. on *Ahoendoé*, now Christian Island.* It would in such a hypothesis, have considerably, and to no purpose, lengthened a journey through a rugged and hilly country.

To sum up in a few words, St. Jean lay about twelve miles from St. Mathias in a southerly, or more likely in a south-westerly direction.

As for the nature of the configuration of the ground, all we can surmise is, that it must have had, though in the hills, a good southern exposure, since the Huron appellation denotes a place where things ripen or are dried, in allusion to the curing, or, perhaps, rapid and successful growth of the indigenous tobacco plant.

Diagram on the Map Explained.

It is fortunate that there is a possibility of checking, to some extent, the accuracy of the foregoing inferences by collating the results with what another passage in the Relations seems to suggest. This passage was just mentioned above in connection with Father Chabanel; and not only for the sake of a more ready reference, but also that no incident may be overlooked, it is advisable to give it in full, and

* The construction of Fort St. Marie II., on the Island of St. Joseph, was completed in November, 1649. *Letter of the Ven. Marie de l'Incarnation, March 17, 1650. Tom. I., p. 416.*

Townships.

BRUCE CO.

I. St. Edmund.
II. Lindsay.
III. Eastnor.
IV. Albemarle.
V. Amable.
VII. Saugeen.
VIII. Arran.
XIII. Bruce.
XIV. Elderslie.
XIX. Greenock.
XX. Brant.
XXXII. Carrick.
XII. St. Vincent.
XV. Sullivan.
XVI. Holland.
XVII. Euphrasia.
XVIII. Collingwood.
XXI. Bentinck.
XXII. Genelg.
XXIII. Artemesia.
XXIV. Osprey.
XXXIII. Normanby.
XXXIV. Egremont.
XXXV. Proton.

SIMCOE CO.

XXV. Nottawasaga.
XXVI. Sunnidale.
XXVII. Vespra.
XXVIII. Flos.
XXIX. Medonte.
XXX. Tiny.
XXXI. Tay.
XXXVIII. Tossorontio.
XXXIX. Essa.
XL. Innisfil.
XLIII. Adjala.
XLIV. Tecumseth.
XLV. W. Gwillimbury.

GREY CO.

VI. Keppel.
IX. Derby.
X. Sarawak.
XI. Sydenham.

DUFFERIN CO.

XXXVI. Melancthon.
XXXVII. Mulmur.
XLI. Amaranth.
XLII. Mono.

translate it as literally as possible. The letters within brackets, which I have inserted in the text, refer to the map, on which F is assumed to mark the site of *Ecarenninodi* or St. Mathias, and A,that of *Etharita* or St. Jean. The latter is placed on the arc N O; but there is no reason why it should occupy the point A preferably to any other on the curve, save what was said in support of the theory that its bearings were south-west rather than due south. Were I to hazard an opinion as to its more likely position, I should say that the site would eventually be found within the boundaries of Osprey Township (XXIV) and a little nearer to F,—since the radius F A represents the full distance of twelve miles,—and not far from its supposed site A.

The other curve P M is the one referred to, as being from five to seven miles too far west, while dealing with the eastern limits of the Petun territory. Its centre will be found in the northeast part of Nottawasaga Township, marked by a dot within a small circle, lying just outside the Village of Stayner, on the Duntroon Road.

One last preliminary remark before citing the passage;—the various routes followed, as indicated by the letters and the dotted lines, are wholly hypothetical, and are to be accepted so far only as they explain more or less plausibly the text itself, and fit in with all the facts recorded.

Ragueneau's Account of Chabanel's Journey.

"Father Noel Chabanel was Father Charles Garnier's companion on the mission [A]; and when the Town of St. Jean was taken by the Iroquois two days had elapsed since they parted company in compliance with an order they had received; for our Fathers and myself had deemed it expedient not to keep two missionaries exposed to danger, to say nothing of the famine which was so direful that sufficient food could not be found for two. But having borne together the burden of the same mission, God willed that they should not be separated by death.

"The good Father [Chabanel], while returning to where obedience recalled him, had passed by the mission of St. Mathias [F], where two of our Fathers where in charge, and had taken leave of them on the morning of December 7. With an escort of seven or eight Christian Hurons, he had made his way for six good leagues over most trying roads when he was overtaken by night in the depths of the forest, [H]. His companions lay sleeping, while he alone kept a prayerful watch. Towards midnight he heard the noise and shouting of the enemy's victorious warriors [C] and of the prisoners, taken that very day at the Town of St. Jean, who were singing their war-song as is their wont. Startled by the sound, the Father roused his companions, who without a moment's delay fled through the woods. They eventually effected their escape by scattering on all sides, then by a circuitous route they headed towards the very place [A] whence the enemy were coming.

"These Christians, after this hair-breadth escape, regained the Petun country,* and reported that the Father had come a certain distance [H I] in his attempt to keep up with them, but that worn out with fatigue had sunk on his knees and exclaimed, 'What matters it if I die? This life is of little account, but what the Iroquois cannot snatch from me is the happiness of heaven.'

"At daybreak the Father bent his course in a different direction; and pushing on all intent on joining us at the island [*Ahoendoë*] where we were living, came upon a river which lay athwart his path, thus barring further progress [L]. A Huron brought in this report, adding that he had ferried him across in his canoe. Furthermore, that his flight might be all the more unimpeded, the Father had disburdened himself of his hat, of a satchel wherein he carried his manuscripts, and of his blanket, which with our missioners does duty as wrapper and cloak and bolster and mattress and bed, or any other accoutrement necessary; it even serves as a roof, when they are on the move, and, for the nonce, have no other shelter," etc (*Rel. 1650, p. 16.*)

How it Happened that the Trails Converged.

The only particular in this narrative that requires elucidation is the implied fortuitous converging of the two trails: the one followed by the Iroquois retiring after having dealt their blow, and the other, by Chabanel's party on their way to *Ahoendoë* That the Father and his guides should have preferred a more inland route to the shore line in their retreat, is intelligible. Journeying by the latter they would be more in view, and would have less chance of escape if pursued. To find an adequate reason for the direction taken by the invading bands after destroying St. Jean, we must turn back to page 8, of the same Relation. The passage, wherein the explanation is more than suggested, runs as follows:—

"Towards the end of November, news reached us by two Christian Hurons, who had escaped from a war party of some three hundred Iroquois, that the enemy were yet undecided as to their future action; whether, in other words, they should march against the Petun Nation, or attack us in the island we occupied. Thereupon, we held ourselves on the defensive, and detained the Huron bands, who were planning to take the field to meet the approaching enemy. At the same time, we sent word promptly to the Petun Nation, who received the news with rejoicing, counting as a certainty beforehand on the defeat of the invaders, and considering the invasion as a proffered occasion of triumph. They resolutely awaited the attack for some days, then, growing restive at victory's slow coming, they sallied forth to meet it—at least the braves of the village of St Jean did so, being men of action and undaunted. They even hurried their departure lest the Iroquois should escape them, for they were eager to surprise them while yet on their way. They set out on December 5, and directed their march towards the quarter whence they expected the enemy [E]. But the invading bands were not met with; they had chosen a roundabout route [D C A]; and to heighten our misfortune,

*Consequently, part, at least, of the eighteen miles (six leagues) covered after their departure from St. Mathias lay beyond what was considered Petun soil.

as they drew near the village [St. Jean], they seized a man and woman who were just leaving it. From these two captives they learnt how things stood in the village, and of the absence of the best part of its defenders. Thereupon they hurriedly pushed on to take advantage of so favourable an opportunity to deluge in blood, and reduce the place to ashes.

"It was on the seventh day of December last, in the year 1649, about three in the afternoon, that this war-party of Iroquois reached the entrance of the town," etc. (*Rel. 1650, p.* 8.)

Inferences Drawn from the Quotations.

That the Iroquois afterwards withdrew by a route, varying little in its general direction from B C D. there cannot be a shadow of doubt; otherwise it would have been impossible to have approached, near enough to be heard, any trail followed by Father Chabanel while attempting to make his way to Ste. Marie II. This alone goes to show that their base of operations—for it was part of their strategy to provide one in case of a reverse—was established somewhere towards the eastern extremity of Lake Simcoe, near Orillia.

This fact once admitted leads necessarily to another inference, namely, that it was from that base, and along the same line, their bands made their approach towards St. Jean. In so doing, they left no flank open to attack. To the north, it is true, lay the whole Huron peninsula, but it was cleared of its inhabitants, and its palisaded strongholds dismantled. To the south their march was covered by the long reach of Simcoe Lake, and Kempenfeldt Bay. This move accounts for, and this move alone can explain, the discomfiture of the *Etharita* braves, who, confident of meeting the hostile bands of the Iroquois, had very naturally taken quite a different course towards the south.

Another important point must be duly emphasized. The scene of the night's halt of Chabanel's party, and the eighteen miles covered after leaving *Ecarenniondi*, necessarily lay to the west of the Nottawasaga River; seeing that it was the only unfordable stream—and that towards its mouth—which intersected the comparatively low-lying lands between Huronia and the Blue Hills. Had that stream been already crossed before the enforced bivouac at H, Chabanel could not have stood in need of the apostate Huron's canoe.

All the inferences drawn from the passages quoted above would be very much the same even were the points F and A slightly displaced.

The Nottawasaga River, in its course from Essa to Flos, taken at any point, is eighteen miles distant from the western boundary of Nottawasaga Township, which is at the same time the county line. In Flos Township, the bend in the stream near Vigo is about seventeen and a quarter miles from the same boundary. So it will readily be understood why our exploring party, in hopes of discovering the rock *Ecarenniondi*, or St. Mathias, directed its researches for a goodly stretch along the road dividing the two counties of Simcoe and Grey.

Ground Gone Over Before Reaching Stayner.

To omit nothing that might interest those given over to historical research, and to put on record failures met with as well as successes scored, it will be necessary to go back to the last entry in our field-notes.

On Saturday afternoon, August 16, the eventful day on which, by a thorough inspection, we had satisfied ourselves that east half lot 4, concession VII, Tay, was in reality the long sought for site of St. Ignace II., my reverend companion and myself boarded the train for Orillia, where we passed the Sunday. Rev. Father Moyna received us hospitably, and overpowered us with kindness. Mr. R. D. Gunn and Mr. Robert Curran, editor of the "News Letter," amicably and successfully conspired to render our short stay at "Champlain's Narrow's" a most agreeable one.

Facts and Fancies.

The afternoon of Monday, August 18, found us back at Coldwater, where Mr. Brokovski and Mr. George Hamilton were awaiting us. It was amusing to learn from the former, who had spent the interval since our departure from Coldwater somewhere in the vicinity of Severn Bridge, that rumour had already been busy on our account. We were, it appears, treasure seekers, and our search thus early had been crowned with partial success; for a sum—to be precise—of not less than thirty-five thousand dollars had been dug up; but we were greedily bent on adding to our treasure-trove.

This recalled the tales to which Father Wynne and myself had listened with unfeigned interest three years previous. Forty-seven years ago, Father Felix Martin, S. J., and a young Jesuit student, well known in after years, to New Yorkers as Father Patrick Daly, had visited the Huron County in the interest of Archaeology. They live yet in the memory of the "oldest inhabitants," but vested by time and fancy with a haze of mystery. Local traditions vary as to the specific object and success of their quest; but the most coherent account credits them with all the astuteness usually ascribed to the Sons of Loyola. After securing the services of some sturdy field labourers, and guided by directions contained in certain musty and time-worn documents, which they consulted from time to time, they set the men to work with shovel and pick. Hours of delving brought nothing to light, though the excavations were many and deep. But towards nightfall, just when the workmen were convinced that they were on the point of unearthing sundry pots of gold, they were paid off, and dismissed with the assurance that all their labour had been in vain, and that there was certainly nothing of value to be found. They, poor fellows, were simple enough to accept the declaration, much to their regret later on; for was it not certain that the two wily strangers, under cover of darkness, had returned to the spot, and with a few well directed strokes of the mattock had laid bare untold treasures? With these they decamped, nor were they ever seen in the neighborhood from that day to this.

The manuscript account of Father Felix Martin's expedition to Simcoe County in August, 1855, together with several interesting plans and sketches, is still preserved in St, Mary's College Archives; and it is much to be regretted that it was never published. This by way of digression.

The Old Fox Farm and Bone-pit.

The horses were *inspanned*, and taking leave of Mr. Colley, our most obliging host of the "British Arms," who had done his utmost on this, as on a former occasion, to make everything comfortable for us at Coldwater, we drove out once more towards the township line. Our party was made up of the same four, and our objective point was Mount St. Louis, Medonte. In the sites lying north-east of this hamlet we were in hopes of detecting some feature that might lead to the identification of the spot where St. Ignace I. had stood. So far, I perfectly agree with Mr. Andrew F. Hunter that the most likely site is that of the east half of lot 16, concession VI., Medonte. The distances from both St. Joseph II., *Teanaostaiaë* (The Cleland and Dunn farms, lot 53, concession I., Flos) and St. Jean Baptiste (near Hawkstone) would correspond with those given in the Relations.

Desirous, however, of visiting once more the old Fox Farm (St. Joachim), west half lot 20, concession X., Medonte, after driving westward along the town line, we turned southwards into the road between concessions IX. and X. The present occupant of the farm, Mr. Beatty, is the immediate successor of Mr. Gleadall. On the occasion of a former visit, while our party were closely scanning the fresh-turned furrows, in quest of shards, or any other trifle to bear off as a memento of the place, the ploughman volunteered the information that he was well aware that treasures were hidden on the land—were he only able to locate them.

This village, though strongly posted on rising ground, was not formidable by its position. The site at one time was looked upon as that of St. Ignace II., but it is far too remote from Ste. Marie I. to admit of such a theory being tenable. It was in all probability here that the village of St. Joachim stood in missionary times.

From the Fox farm it was but a short drive to the old bone pit lying close to the road on east half of lot 18, concession IX. Fathers Martin and Daly had examined the ossuary as early as 1855. It has lost its symmetrical appearance from having been frequently disturbed. The bones, in some places, lie quite near the surface.

Through the Region of St. Ignace I.

Continuing on our way towards the south, as far as the side road between lots 15 and 16, we struck westward through the hamlet of Moonstone, formerly Medonte. Our first disagreeable experience of bad weather began at this stage of our journey. From August 11, date of our departure from Montreal, it could not have been more favorable. It had held well to fair until Sunday evening, August 17, when we had a premonitory shower at Orillia. For the last few hours the clouds had looked sullen and threatening; and, just as we were drawing near that part of Medonte Township which held what

most interested us, the rain came down in steady and business-like showers, rendering the roads, in some places, all but impassable. In fact, owing to washouts and to the barriers raised across the road as warnings, which were but dimly discernable in the dusk, we were, on one occasion especially, as we were descending a steep declivity, within a hair-breadth of disaster. And though the horses had no secure footing, and slid for yards at a time in the slippery clay, our skilful driver managed in time to turn the obstacle without landing us all in the deep gully by the wayside.

This was all very unfortunate, the more so seeing that on our last expedition across the township we had had just such another disagreeable experience. To stop and examine the several sites along our route was, under prevailing difficulties, out of the question. Consequently, we reluctantly drove by the farms of Andrew Robertson (east half lot 15, concession VII.), of Richard Watson (east half lot 16, concession VII.), of Henry Heaslip (east half lot 16, concession VI., the probable site of St. Ignace I.), of Anthony Hughes (west half lot 15, concession V.), of Francis Barr (east half lot 15, concession IV.) and of James Loftus (west half lot 14, concession V.)—all of which we had intended to examine. We reached Mount St. Louis by the road between concessions IV. and V., and proceeding westward on that between lots 10 and 11, called upon Mr. Fitzgerald, who had received us very hospitably once before.

The Oldest Inhabitant.

During our outing in 1899, we had endeavored to pay a visit to Mr. John P. Hussey, one of the pioneer settlers. He had heard through the local papers of our projected expedition, and had courteously extended to us an invitation by letter as early as March in that year. Meanwhile he had removed from the immediate vicinity of Mount St. Louis, and thus, much to our disappointment, we failed to meet him. Mr. Fitzgerald informed us that he now resided with his daughter but a short distance down the line between concessions III. and IV., so we determined not to miss him this time.

In his manuscript "Voyage et Recherches dans l'Ancien Pays des Hurons Août 1855," Father Felix Martin gratefully expatiates on the very cordial reception given him by Mr. Hussey, and on the many services rendered by him and his generous fellowcountrymen of the "Irish settlement," during the Father's stay in that district. In fact, without the co-operation of this most obliging host, Father Martin's trip might have proved anything but successful.

On our part, we were delighted with our interview, and learned much that was useful from the sturdy nonagenarian—some would say centenarian—whose retentive memory might well be exploited in the interests of local history. What with the rain beating down without, and with the verbal flow of many interesting reminiscences within, we were loath to take leave of Mr. Hussey. But as all things must end, the session was adjourned, and wishing the veteran many more years of life and prosperity we once more faced the downpour and were soon on our way to Hillsdale.

After much discomfort, and with a general sense of disappointment at having been frustrated, throughout the day, in our attempt

at identification of sites, we finally drew up before Mr. John Shannahan's hostelry.

Scanonaenrat or St. Michel.

Tuesday, August 19, without being an ideal day, gave better promise than the last. Our objective point was Penetanguishene by rail from Elmvale.

The country around Orr's Lake, quite new to me, must always be of great interest, associated as it is with St. Michel or *Scanonaenrat.* So striking out on the Penetanguishene road we made half the circuit of the lake, to the east and north.

When it is remembered that the only certain test of the correctness of the positions to be eventually decided upon as those occupied by the towns of *Teanaostaiaë* (or St, Joseph II.) and St. Ignace I., is the distance of St. Joseph II. from St. Michel, and in turn, of St. Ignace I., from St. Joseph II., it will be recognized how very important is the accurate placing of St. Michel on the map of Huronia.

The only data available which could be of any assistance in securing this result may be summed up in a paragraph or two.

And first, the meaning of the word. Deriving it from *Skat-annona-aenrat, Scanonaenrat* would mean "The one white sandy river bed;" though *annona,* besides the bottom of a lake or stream, means also, a cliff, a treasure, a provision laid by, a draught of fishes, a habit or custom, the back.

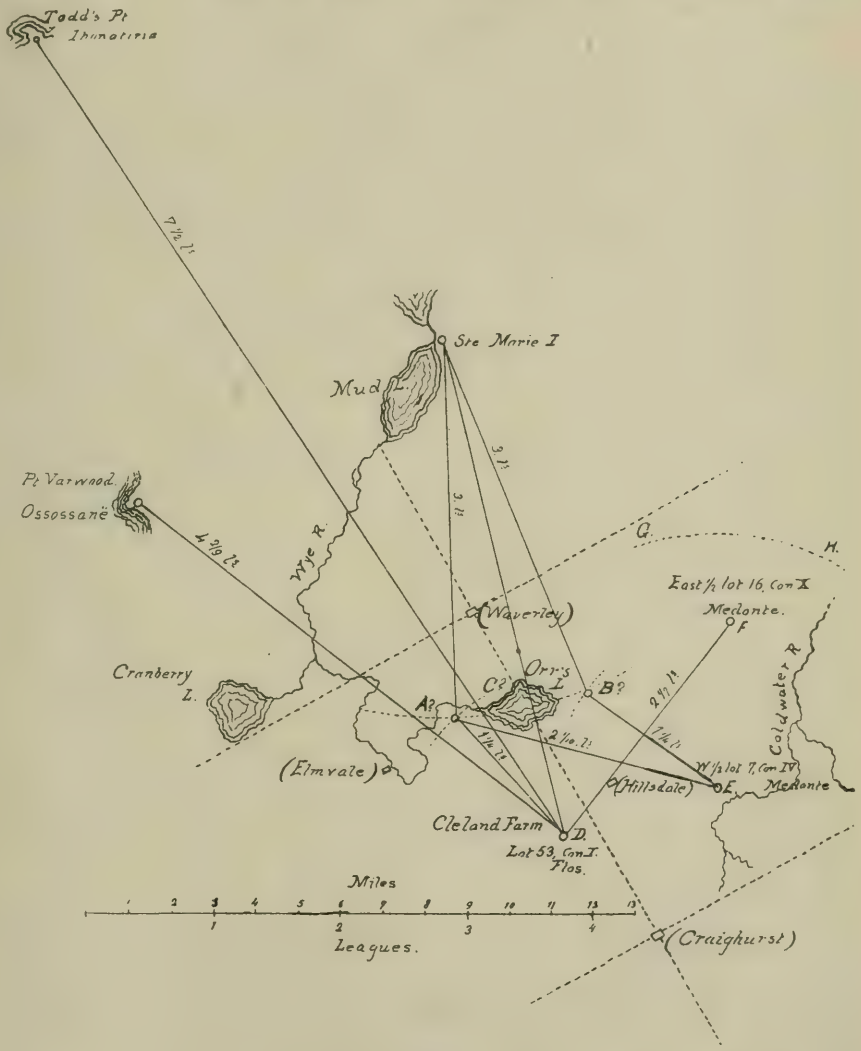
It lay on the trail from *Ihonatiria* to *Teanaostaiaë* (Rel. 1637, p. 161, 2 col.) It was three leagues from Ste. Marie I. (Rel. 1646, p. 78, col. 1). It was, moreover, "*cinq quarts de lieue*"—a league and a quarter—from *Teanaostaiaë* (Rel. 1639, p. 72, col. 1), or even less: "Our Fathers having arrived at the place called '*la mission de St. Michel*' . , . set out again with the intention of consulting with our Fathers at St. Joseph, one league distant." (*Du Peron's letter—Carayon's Première Mission, p. 180.*)

Were we to be wholly guided by Ducreux's inset map, there would be no mistaking its approximate position. It is set down there between Orr's and Cranberry lakes, rather nearer the latter, and to the north of the watercourses issuing from the two, but as Ducreux has it, joining them. Such are the data; but they cannot all be made to agree with mathematical precision. Nor have I heard of any sure indications of Indian villages having been found along the arc whose radius would be three leagues with the centre at Ste. Marie I. Still as this distance is given it must be taken into account.

Teanaostaiaë or St. Joseph II., the Cleland Farm.

I have spoken with assurance of the Cleland farm being the site of St. Joseph II. The indications of a large village on the spot are unmistakable. An arc having for radius one league and a quarter and its centre on the Cleland farm would intersect the arc mentioned above (rad. 3 leagues, centre at Ste. Marie I.) to the west of Orr's Lake, about lot 69, concession II., Flos. The Cleland site is the most southerly of all the Huron villages, on the direct trail south to the Neutral Nation. (*Cf. Rel. 1641, p. 74, 2 col.*)

The other requirements as to distance, are fairly well satisfied. It is, however, but four and two-ninth leagues from *Ossossanë*, while five or six are mentioned in Du Peron's letter of Aug. 27, 1639. The distance of St. Joseph II. from Ste. Marie I. is given in Relation 1646 (p. 79, 1 col.) as five or six leagues, and as five in Relation 1644 (p. 76, 2 col.); while the distance from the Old Fort, necessarily around Orr's Lake, to this spot is four and a quarter. From *Ihonatiria* (Todd's



Point) St. Joseph II. was seven or eight leagues distant; the Cleland farm is seven and a half from the same point.

But what is strongly in favour of this site, is that from it alone of all known village sites, with a stretch of one league and a quarter, (the distance of St. Joseph to St. Michel), some portion of the ground lying between Cranberry and Orr's Lake (probable position of St.

Michel), may be reached. For it strikes one as quite inconceivable that a principal town like St. Michel, representing in itself a whole separate tribe, should have been set down between two such salient topographical features as the twin lakes, unless with forethought and most deliberate intention. So it would seem almost illogical to seek for any remains of its site elsewhere, for instance, to the east of Orr's Lake.

The Flanagan Homestead as Teanaostaiae.

And yet there is a site, other than the Cleland Farm, which in some respects, if not in this, has stronger claims to the distinction of being the "Bulwark Village of the South," that is, the site on the west half of lot 7, concession IV., Medonte. In the first place it occupies a more commanding position than the former, which would seem to tally better with Bressani's observation (*p. 247*): "As (the enemy) could approach it on one side only, on account of the elevation of its site, those of the inhabitants who were so inclined had time to escape on the other side." As yet I have not had the advantage of visiting this site myself; but Mr. Andrew F. Hunter, in his monograph on Tiny Township (p, 77), says that it is on the top of a very steep hill, 250 feet or more in height, that thick deposits of ashes had been found there together with many Indian relics.

Though Father Martin makes no mention of the number either of lot or concession, this is certainly, from the description given, the site he visited at the "Irish Settlement" in 1855, and of which he speaks on pages 92 and 93 of his manuscript: "I examined this site," he says, "with care. There is no doubt as to there once having been an extensive Indian settlement on the spot. Unequivocal signs of this are yet discernible. The surface soil is still littered with shards of pottery of Indian make. . . . The most interesting article found, a short distance away, and at about the distance from the village at which the missionaries' cabin might have stood, was the remains of the base or [rectangular] stand either of a candlestick or crucifix in brass.* It had been turned up by the plough. It must have been subjected to the intense heat of a conflagration, as part of the metal was fused. The site of which we speak is moreover admirably fitted for defence. It crowns the height of a bluff, from which the view ranges far and wide over a broad valley, watered by the stream whose outlet is near Coldwater."

In a straight line this site would be five leagues from *Ossossanë*, a little over four from Ste. Marie I., and not quite eight from *Ihonatiria*. Comparing this position with that of St. Joseph, as set down on Ducreux's map, it will be remarked that its bearings from Orr's Lake are much the same. Its proximity also to the upper reaches of the Coldwater is quite in keeping with Ducreux's mapping.

All these particularities would seem to bear out admirably the theory that it is really the spot where St. Joseph II. stood—its commanding

*Among the coloured sketches, added in the form of an appendix to the M.S., all of which were executed by Father Martin himself, there is an excellent one of this relic. it is not said to whom it then belonged, nor have I ever heard of its being ment oned since.

position, its correct distance from several known sites, and the finding there of the half-melted rectangular stand, resembling far more that of a crucifix than aught else. Such a base precludes the idea of a portable crucifix ; while if it belonged to a candlestick, it would be far too elaborate for anything of that kind in use in a missionary's wretched cabin. In either supposition it could only find place on an altar. The burning of the village is described in Relation 1649 (*p. 4, 1 col.*), and that of the church is expressly mentioned. It was into the flames consuming the structure that the lifeless body of Father Antoine Daniel was cast.

On the other hand, though it could be considered the most southerly site, it could scarcely be said to lie on the direct trail to the Neutral Nation. But the two leagues separating it from the nearest point on the western side of Orr's Lake, is the most perplexing difficulty to explain away. Father Du Peron's estimate of one league from " la mission de St. Michel " might possibly be interpreted to mean one league from the nearest encampments scattered around Orr's Lake, some possibly to the east, all of which, together with the town itself, would go to make up the Mission of St. Michel. But the "*cinq quarts de lieue*" to the residence of the local missionaries, written out in full in its quaint phraseology, *five quarters of a league,*" can not be explained by a mistake of the printer, who might, were it written in figures, take one for another. So that if we accept this distance as correct, and set down St. Joseph II on the west half Lot 7, Con. IV, Medonte, St. Michel must be ousted from its well defined position, and placed to the east of the lake (B). This would be taking a very great liberty with the work of one who had his information at first hand.

Importance of Identifying St. Michel's.

With our present knowledge of the village sites in this part of Huronia, our only choice lies between these two sites (the Cleland Farm and west half of lot 7, con. IV, Medonte). Now were the site of St. Michel fully ascertained it would simplify matters wonderfully in determining our choice.

As for the site, lying across the Penetanguishene Road, partly in Flos and partly in Medonte, numbered lots 53, and which was explored in 1899 by Father Wynne, Mr. Brokovski and myself, it is much too far south to admit of its being St. Joseph II. It is a prehistoric site, in the sense that the village was no longer in existence at the time of the resident missionaries.

If I have digressed to this extent, it is to show the great importance of determining, before all else, the site of St. Michel, and not because anything of much importance came of our investigations in this quarter during the last summer. The most that was secured by our party in the shape of information, was a more correct idea of the nature of the country, through which we passed, in the immediate vicinity of Orr's Lake; still we hope that even this will be turned to good account before long. We hope also that meanwhile those residing nearer this interesting locality will be able to take advantage of the data submitted above, and of the rather dry disquisition accompanying them. One conclusion we drew with conviction, and that

was, that it would be useless, in view of the general contour of the landscape, to look for St. Michel much to the west of Orr's Lake, and certainly not anywhere near Cranberry Lake.

Through the Region Between the Lakes.

By telephone from Hillsdale we had made an appointment with Dr. McClinton of Elmvale, and he very obligingly met our party at Mr. A. Bowman's farm (lot 72, con. II, Flos). The doctor had, some eight years ago, together with Mr. David Boyle, made a thorough inspection of the bone-pit discovered by Mr. Bowman on his land. Mr. David Boyle recorded carefully, as his wont, all the particulars relating to this ossuary in his Archæological Report of 1894-95 (*p. 42*). Nothing new was elicited by our visit. Being in quest of village sites, which are betokened not by bone-pits but by ash-beds, of which we found no trace, we kept on towards the north by the road between I. and II. concessions, Flos, that we might at least form a correct idea of the lie of the land between the two lakes.

Turning to the west on the county line between Tiny and Flos, as far as the cross-road between lots 5 and 6, we followed the latter, journeying south through a comparatively flat country, until we reached Elmvale. We dined at the "Queen's," which, by the way, in its appointments is exceptionally neat and attractive for a country inn. The proprietor, Mr. Broderick, deserves our thanks for his kindness and attention.

It was here we parted company with Mr. Brokvoski and Mr. George Hamilton. To these two most companionable guides both Father Quirk and myself wish to express once more our deep sense of gratitude for their ever-ready and patient co-operation in what, under other conditions, might have proved very wearisome explorations.

A Clue to the Whereabouts of a Phenomenal Rock.

An early afternoon train from Elmvale soon landed us at Penetanguishene. Here we found all in commotion, and everybody at the presbytery bustling about, as there was a bazaar for the Memorial Church in full swing. The house was full of guests, and, rather than add to the difficulties of the situation, we resolved to push on to Lafontaine.

While awaiting the conveyance which was to bear us to our destination, we had time to make friends with several of the reverend clergy. The delay was indeed providential, for among our newly made acquaintances was the Reverend Father Jeffcott, of Stayner. Of course the purpose of our wanderings and zig-zag journeyings across the country was discussed; and, to prepare the Reverend Father in good season for the infliction, I announced the more than probable expedition which, a kind Providence favouring, we fully intended to push through his part of the country the following summer. It certainly had not been our intention to take in, on that trip, Nottawasaga Township, much less the adjoining townships in Grey County, for our charts were not quite ready, and we had no fixed itinerary mapped out; but the Father's invitation was most cordial, and he suggested that we should drop in on him that very season.

Mentioning incidentally the famous Rock *Ekarenniondi*, which we hoped to discover either in Collingwood or in Osprey township, Grey County, he told us that he had heard of some such freak of nature in, or not far from what the good people of the Hills called the Devil's Glen. The name was uncanny enough to suit us, and quite suggestive of ghosts, Huron, or of any other nationality; but then, there might be much or little in the appellation. So, however much we felt inclined to accept the invitation, we dared make no promise; indeed the vacations were fast slipping by, and a busy year's work was awaiting us at Loyola. Prudence suggested that we tender him our thanks; we bade his Reverence a non-committal *au revoir*, and hoping for the best, were soon on our way towards Lafontaine.

Onnentisati or "Evergreen Glade."

To the west of Penetanguishene Bay there is a high plateau, probably over two hundred feet in elevation, with very steep ascents from the east and south. It is somewhat inland, and, to be more precise, comprises lots 9, 10, 11, 12, 13 and a part of 14 in the two concessions XIV. and XV. It really extends somewhat further south, well into concession XIII. In Huron times it bore the name of *Tandehouaronon* * Mountain (*Rel. 1637, p. 149*), and was, as the Relation puts it, near the Town of *Onnentisati*,† which has not yet been identified with any known village site.

It was partly around this hill we drove, skirting it on the north-east and north. Being guided solely by what data we have in the Relations, I should say that *Onnentisati* ought to be found somewhere along the east or north-east border of the plateau. I had come to this conclusion in 1899, though that same year Father Wynne and myself had found indications of a village site at the foot of the bluff, to the southeast, on Ladouceur's farm, north half of lot 10, concession XIII. The ash-beds, however, did not seem to be extensive enough to warrant a contrary conclusion, nor was there any local tradition of their having been found to cover a greater area when the land was first tilled. I might add here, that, on our drive back to Penetanguishene, this last trip, we crossed the ridge from west to east, by the road between concessions XIV. and XV., and were much impressed by the adaptability to purposes of defense of the projecting spurs facing the east.

The "Land's End" of the Hurons.

On the following day, Wednesday, August 20, we were weather-bound at Lafontaine; but we spent the day, in spite of the rain, agreeably enough, and in excellent company. For, not to speak of Father Beaudoin, the local pastor, whose whole-souled hospitality would scatter sunshine through the densest of dismal skies, Father

* The word may mean either Hill of "The Sand-dwellers," or Hill of "The Beaver Skin People."

† From *Onnenta (Rad. Hur. 1751, p. 290, 2 col.)* a fir-tree, any tree exuding gum and not deciduous; and *isati* (*Id. p. 238*) having a recess, or inner corner, a receding angle, as *etiotenrisati*, in the corner, the receding angle, the recess of a palisade or bastion (*Id. Ibid.*); consequently, a village standing in the recess of a grove or forest of fir-trees.

Barcelo, of Midland Parish, had driven over, and his genial presence completely reconciled us to our enforced inaction.

The all-engrossing topic was the possibility of future discovery in the country. And when Mr. Beaudoin, the postmaster of Lafontaine, who is familiar with every acre of Tiny Township, joined us with his party, and Mr. Longpré, our cicerone of '99, dropped in that evening, we were soon in possession of all the changes which had taken place, since our last tour, in the ownership or occupancy of farms where we had examined together village sites or bone-pits.

Plans were laid for the morrow. On our former visit to this part of the Huron Country, the surroundings of Todd's Point had been explored as much as the heavy growth of timber would allow, and a good photograph taken of the long, flat, mushroom-shaped point, which stretches out into the lake from the foot of the bluff on which *Ihonatiria* had stood. For this reason we now resolved to beat over what ground we could to the west of Thunder Bay towards Cedar (Clover) Point. It was there that the town of *Tondachra* * was situated, one league to the north of *Arontaen*. (*Rel. 1637, p. 112, 1 col.*)

The day (August 21) turned out fine, and we picnicked at Cedar, otherwise Clover Point, in full view of Christian Island, the last refuge of the panic-stricken Hurons before their final dispersion. This name of Christian Island, though generally regarded as quite a modern appellation, would seem to have been taken from the Relations. The twelve Huron chiefs, who pleaded so eloquently with the missionaries not to abandon, but to follow them to St. Joseph's Island, as it was commonly called by the Fathers, assured them "That all the unbelievers among them, who had survived, had resolved to embrace the Faith, and that they, the Fathers, would make of this Island an Island of Christians. (*Rel. 1649, p. 27, 2 col., see also Rel. 1650, p. 3, 1 col.*)

The Huron name was *Gahoendoë*,† as we find it on Ducreux's Map, or *Ahoendoë*, as given in the Relations (*1649, p. 29, 1 col.*).

* The *Tondakea* of Ducreux. Derived either from *aton* (*Rad. Hur. 1751, p. 34* et cf. *atonhation p. 35*) to be lost, to vanish, to die away little by little ; or from "*ata* (*Id. p. 198*) in compositione et extra (le bout, l'extremité de quelque chose)," the end or extremity of something ; which word, however, is generally used as a verb at the end of compound words ; and from *ondechra, ondecha* (from *onda*, space, extent) which means land, country ; see R. H. p. 295. Hence *ata-ondechra, atondechra*, or *tondachra*, land's end.

† *Gahoendoe* and *Ahoendoe* ("a" with iota subscript) are two forms of the same word, and are pronounced alike. Potier says (*Hur. Gram. p. 1*) "g" vulgo sonat ut iota [i], aliquando tamen ut apud nos, v.g.: *ochingot* gras [fat] etc." On the next page, under the heading "De 'i' seu 'j' (iota)," he remarks : "Haec virgula seu semi littera 'i' vel 'j' maximi est usus ; primo, ad pronuntiandum, v.g. *atatiak* (a with iota subscript) dic *iatatiak*, etc. Ante alias vocales idem, sed lenius quasi prope 'i' non vero omnino ; usus docebit." Something, very likely, between a "g" and a "y"—ya-whendoë. The precise orthography is given by Potier (Rad. Hur. p. 288) "*Ah8ênda* (*ak8henda*) [initial "a" with iota subscript] espace de terre separée, ile ;" and (*Id. p. 241*) "*a8endo*, il y a une ile dans un lac, une rivière," to which the suffix "*ae*" is added, making *A8endo-aë, A8endoë.*" This suffix "*ae*," which answers the question understood *ubi ? quo ? qua ? unde ?* (see Gram., p. 87), is in constant use in names of places, v.g. *Andiataë*, at the bridge. But in compounding words it not unfrequently happens that the final "e" alone remains after the other elisions. Thus Potier remarks (*R.H., 1751, p. 82*) : "Porro aliquando accidit ut in compositione nominum cum verbo '*ae*' [both vowels with iota subscript] fiat contractio ita ut vix appareat pars ulla verbi, v.g. . . . *a te ondeche* (pro *a te ondechrae*) par toute la terre," everywhere on earth. This is just what has happened in the case of *Ah8endoë.*

It lay to our left, while *Ondiatana** lay well to our right, opposite *Ihonatiria*.

We failed, on our return trip from the Point, to meet either Mr. William Richardson or Mr. John McLellan, and thereby lost the opportunity of going over the ground (east half of lot 19, concession XX., and lot 19, concession XXI.), which there is every reason to believe is the site once occupied by *Tondachra*. But, as Mr. Andrew Hunter has already placed on record all the interesting particulars bearing on this site, there is less room for regret. "Its situation" he writes (*Tay. p. 10*) "is on a kind of high lake terrace or plateau overlooking Georgian Bay with Beckwith Island just opposite. The land had been cleared four years previous to our visit, and it was during this operation that the first evidences of Huron occupation had been observed. These consisted in the usual ash-beds containing pottery fragments in abundance and other relics common to such sites." This profusion of potsherds would be quite sufficient to differentiate it from the Fort the Iroquois constructed somewhere on the mainland opposite *Ahoendoë* or St. Joseph's Island, late in the autumn of 1650 (*Rel. 1651, p. 5, 1 col.*), that is, after the missionaries with a number of Hurons had left for Quebec.†

On our homeward drive we proceeded as far west towards the lake shore, north of Cockburn Point, as was practicable, to examine the lie of the land in that direction. In this vicinity stood, in Sagard's time, the town of *Quieunonascaran*, so often mentioned by him in his History and his "Grand Voyage." It still existed at the time of the Jesuit missionaries, but had lost much of its importance, and had been split up into three villages bearing conjointly the same name of *Khinonascarant* (*Rel. 1637, p. 128, 1 col.*). One of the possible meanings of this word is "The dragging place at the opening of the mouth," bearing some reference, no doubt, to its position near the opening of the straits between *Ahoendoë* Island and the main land; and perhaps also to the trolling grounds near by.‡

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* This form is from Ducreux's Map, but *OndichaSan* is that given in Relation 1637 (*p. 149, 2 col*). It is derived from *Ondia*, a point of land (*R.H., 1751, p. 295, 2 col.*); *echi* beyond (*Hur. Gram. p. 68*) and "*aSan*, avoir quelque chose à soi [to own]" (R.H. 1751, p. 157). Thus *Ondia-echi-aSan*, contracted according to rule (*Hur. Gram. p. 66*) *OndichaSan*, meaning: Beyond the point belonging to us, or, The Island Off our Point. And in fact, as it lies off Todd's Point, and as Relation 1637 (*p. 149, 2 col.*) informs us that *OndichaSan* was a large island which the Fathers had in sight from where they were, i. e. *Ihonatiria*, it is a certain indication that the latter hamlet was situated near Todd's Point.

The Ondiatana of Ducreux is a Huron word, *Ondia-ata-San*, contracted *OndiatSan*, to which a Latin dress has been given to make it an adjective agreeing with *insula* in the feminine. Etymology: *Ondia*, a point of land; *ata*, the end or extremity of; *San* or *ouan*, ours; meaning, "The island of (genitive) the end of our point," or "belonging to our point."

†The Fathers abandoned Fort Ste. Marie II., on St. Joseph's Island, June 10, 1650 (*Rel. 1650, p. 1, 1 col.*)

‡ There are several possible derivations:—

1. *Chi*, beyond *Hur. Gram. p. 91; aSinnon* or *innon*, both of which mean to drag, to trail, to haul, (*Rad. Hur, p. 163*; *askarent*,) the opening of the mouth. Thus, *Chi-innon-askarent*, the latter root not entering properly into composition but being simply added, making *Khinonaskarent*; *rent* or *rant* sounding alike when pronounced by a Frenchman. The meaning would be, Beyond the trolling grounds at the opening of the strait.

That it was customary among the Hurons to trawl or troll for fish, as is the practice nowadays throughout Canada, is evinced by an example given by Potier of a com-

Its probable position would be in the XVIII. or XIX. concession, on the high ground not very far from the shore line. The Relation 1637 (*p. 128, 1 col.*) gives two leagues as its distance from *Ihonatiria* (Todd's Point). Sagard, whose leagues, by the way, were remarkably short, places it four or five from LaRochelle, later *Ossossanë* (*Histoire, pp. 206, 207*), and the same distance from *Toanchë* (*Toanchain, de la Roche Daillon ; Toënchen, Sagard*). Our time was too limited to allow us to look very closely for any exceptional irregularity of surface in the neighbouring fields, which though high above the lake seemed uniformly level. One lot did not hold out more advantages than another, while all were suitable for ordinary village sites. For this reason nothing short of the actual discovery of ash-beds in sufficient number will avail in the singling out of the exact spot where *Khinonascarant* stood.

Arontaen Near the Straits.

From the concession line (XVIII.-XIX.) we turned south between lots 23 and 24, and reaching the next concession road (XVII.-XVIII.) proceeded eastward along it as far as the farms of the two Brunelles, father and son (lot 21, concession XVII.), adjoining which on the east (lot 20 same concession) lies the probable site of *Arontaen.** The ground is somewhat higher on the latter lot, but as we saw it was wooded, with the limited time at our disposal, we made no attempt to examine it critically. Mr. Louis Brunelle, Sr., kindly presented us with an axe found on his land. It bore on both sides a triple *marque de fabricant*, the impress of a steel cylindrical die with a cross filed into the end. Another axe of French make, which we gratefully received as a gift at Lafontaine Presbytery, came from Mr. J. B. Dubeau's farm, lot 14, concession VII., Tiny, one of the three sites of *Ossossanë* we visited in '99. Its markings were different. It had four impressions on either face from a die filed across, after the fashion of a Union-Jack with two crosses intersecting at the centre, showing that it came from a different forge. It might be mentioned here that the stamp, noticed on all the axes found, resembles in no wise a *fleur-de-lys* as some have supposed.

We had just time to take a run down, by the road between lots 18 and 19, to the Old Plum Orchard, dating back to missionary times,

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pound word from the same root *a8innon*: "*enditsa 8innon*, traîner son appât, son amorce" to trail one's bait, and a few lines further down "*a8indeti*, traîner une chose avec un autre v. g." *enditsa8indet*, vel *ostiesara*, vel *aontsenta* hameçon, ce avec quoi on traîne l'amorce," a fish-hook, that by means of which the bait is trailed.—*Rad. Hur. p. 163.*

2. *Xa, Hur. Gram. p. 68*, here, hither, thus far, hence, etc. This word may replace *Chi* in the above combination with a corresponding change of meaning: At the trolling place, etc.

3. Or taking *innon*, with a tilde over the *n*, which signifies thunder, *Chi-innon-askarent*, Beyond Thunder Opening, Beyond "Thunder Bay." This would give the alternative appellation of Douglas Bay quite a venerable origin.

* Derivation: 1. Arŏn, *Rad. Hur. 1751, p. 61*, things sundered ; "*te* vel *tende* duo," *Hur. Gram. p. 102*, two ; it is also the sign of the dual, *Ib. p. 26* ; "*aen*, y avoir quelque chose en quelque lieu, v. g. [among other examples], *andataen*, il y a un village, et alia innumera." *Aron-te-aen, Arontaen*, the two shores are sundered, stand apart. Thus *Arontaen* a strait in general, while Potier gives *Karontaen* as meaning specifically Detroit (*Gram. p. 156, 1 col., line 21*), the prefix *Xa* indicating the place : Here there is a Strait.

2. It could also derive from *Aronta*, a tree or trees (*R. H. p. 293, 1 col.*, and *aen.*)

and return to Lafontaine before nightfall. It stood, in concession XIV., on the rather steep banks of the little stream flowing into Nottawasaga Bay near the site of the Huron village of *Arenta*,* but nothing now remains of it.

The Old Fort.

Much to our regret we left this interesting part of the old Huron country on the following day, August 21, crossing over the hill near *Onnentisati*, as I said before; and without stopping at Penetanguishene drove directly to Midland where we had planned to spend the Sunday. We fell once more among friends—to fare otherwise seemed impossible—they were ubiquitous. Father Barcelo was expecting us, and his hearty welcome made us feel quite at home from the first.

Saturday morning, August 22nd, saw us on our way to Old Fort Ste. Marie I. In 1899 we had carefully verified Father Martin's measurements, consequently our visit was not prompted by a thirst for discovery, as no new fact, or hitherto unobserved feature was at all likely to be noted; but it took on rather the semblance of a pilgrimage of enthusiasts, who would never forgive themselves for having passed within easy reach of those ruins, by far the most venerable within the wide limits of our great Province of Ontario, without doing them reverence.

We wished to stand again on that hallowed spot, to look back two centuries and a half, and witness in fancy that saddest of dramas, enacted in the depths of the Canadian forests. There grouped together were priest and neophyte and unbeliever, silent onlookers of the work of destruction. They saw—nor was protest uttered—the torch put to the sacred pile. The flames, fanned by the midsummer† breeze, leaped from palisade to roof, from roof to machicolated gallery, and sprang circling round, and upward, to the tapering spire. With the fall of the sign of Redemption which capped its finial the fondest hopes of the missionary died away, while nearby stood the Huron gazing unwittingly at the funeral pyre of his Nation.

"But," writes Father Ragueneau with masterful simplicity, "it was unavoidable; we had to leave that old home of Ste. Marie; to leave those edifices, unpretentious as they were, but masterpieces of art to the eye of the savage; to forsake those cultivated acres which promised us a rich harvest. We had to abandon those haunts, which I might well call our second Eden, our innocent delights, since they had been the cradle of this Christian people. Here had been reared God's temple and the dwelling of the Master's labourers. And lest our all too impious enemies should profane this blessed abode, or derive any advantage from it, with our own hands we applied the torch, and saw

* "*Areenti*, y avoir une embouchure de rivière en tel endroit," (*R. H. p. 180*); "*Areencha* embouchure de rivière." *Id, Ibd.* "*At*, quelque chose être dans une autre." *Id. p. 19.* Hence *Areenti-at*, *Areentat*, *Arentat* (*Cf. Arentet, in Rel. 1649, 2 col.*) at the river's mouth.

†The wooden superstructure of the Old Fort and church was given over to the flames on June 14th, 1649, and by 5 or 6 in the afternoon the last of the missionaries and Indians had embarked on rafts or in canoes for Ahoendoë.—Rel. 1650, p. 3, 1 col.

consumed before our eyes in one short hour the handiwork of nine or ten years of toil."—(*Rel. 1650, pp. 2, 3.*)

Our party approached the spot without misgiving, counting on finding it undisturbed at least, and as undesecrated as God's acre. We expected to see a wretched ruin, as heretofore, flaunting its rank growth of weeds to the winds, or with them draping its shapeless mounds, or fringing its crumbling masonry—sure token of neglect, but not of vandalism. It was with dismay that we perceived, as we drew nearer, a modern summer lodge with stable and indecorous out-houses usurping the space on its southern front, and aggressively stretching up almost to the very foot of all that now remains of the south-eastern bastion.

It was not altogether a matter of surprise, however much it was of sorrow, that the utilitarian spirit of the day had been allowed to play havoc with what history held as sacred. For on our first visit to the Old Fort we protested, it would seem in vain, against the ploughing up and seeding of that very portion of the land, insignificant in extent, across which ran the line of entrenchment and palisade, thrown up to protect the hospice and camping-ground of the wayfaring Hurons. This, thanks to a difference in colour and the barrenness of the clay, was yet plainly discernible. But the modern intrusive structure has obliterated it completely. It is guilty of more than this, it holds in its foundations, we were assured by a neighbour, stones conveniently quarried from the adjoining ruins.

When, in 1855, Father Martin visited the Old Fort, he found the walls were yet four feet above ground. Those who have visited it of late know how little of this now remains. Providentially, exact measurements were taken in season, and correct drawings still exist; but private enterprise can do little to stay the inroads—not of time—but, to put it mildly, of "individual unappreciativeness," while it can effect even less in the way of restoration.

In European countries the civil government takes over the care of public monuments and places of historic interest. In America there are so few ruins to which cling the memories of a glorious past, that there is all the more reason to save what little there is of venerable from being wholly swept from the face of the land.

I feel confident that every lover of the Canadian past, whether recorded in legend or in story, will join in respectfully petitioning the Ontario Government to secure possession of the two old forts, the one just mentioned above, the other on Christian Island, together with a few acres of land around them, and restore them as much as can be to what they were when first brought again to light in the last century.

It was with a feeling of something very much akin to indignation, that we turned from the ruins of the Old Fort (*Lot 16, con. III, Tay*) to get ready for our drive back to Midland. We were already seated, and on the point of taking leave of Mr. Chales, at whose place we had left our team, when he presented us with an interesting relic, the upper portion of a brass candle-stick which had been ploughed up very near the Fort. The shape was familiar enough, but it was unusually heavy and old-fashioned in make, having been cast with a core and finished on the lathe. It will be carefully treasured as a memento of Old Ste.

Marie I., and as a reminder of the donor's kindness. At Midland we found Father Beaudoin who had driven all the way over from Lafontaine to take leave of us once more.

Further Tidings of the Rock.

While we were yet the guests of Father Barcelo, we had occasion in his company to pay a visit to Mr. Michael O'Hare, senior, proprietor of the Midland Woollen Mills. We found him surrounded by his numerous family. A grandfather already, though comparatively young in years and full of vigour, he presided over his assembled household with kindly and patriarchal dignity. He had been a resident of Creemore, in Nottawasaga, for many years, where his boys had been brought up, and as boys they had ranged over the township far and near as boys only know how. They confirmed all we had heard from Father Jeffcott about the Rock, the Devil's Glen and other places of interest. But whether it was owing to our profound ignorance, both of the localities described and of the actual bearings one from the other of the points mentioned, or to a too great insistence on features which appealed more to the fancy, but were less essential to our purpose, we came away with but a hazy notion of the exact position of the important landmark. In fact the impression left was the Devil's Glen and the monumental Rock lay in different parts of the township.

Still we had enough to determine us to put off for a day or so our departure for Montreal, rather than postpone for another year all attempts to find *Ekarenniondi*. In pursuance of this resolve a despatch was sent forthwith to Stayner lest we should take Father Jeffcott wholly unawares.

Stayner.

Monday, August 25, Father Barcelo himself drove us over to Penetanguishene, where we took leave of him. It is to be hoped that the future holds in store more than one opportunity when our debt to his Reverence and to his *confreres* may be requited.

Not so much to escape a long delay on a bare platform at Colwell Junction, as to foster friendly relations with an old aquaintance, we ran through by train to Barrie, and spent a most agreeable hour or two with Dean Egan. By 8 o'clock we were on our way to Stayner.

Stayner is a little town on the Collingwood branch of the Grand Trunk Railway, in Nottawasaga, the most western township of Simcoe County, and lies in the flat lands between the old Huron and the Petun countries, but nearer the latter. Reverend Father Jeffcott, whom we had the pleasure of meeting at Penetanguishene, on August 19, had lately been placed in charge of the parish. Two young ecclesiastics, Edward Kerby and John Purcell, both of whom had graduated in theology at Montreal that summer, the former securing a D. D., the latter an L. Theol., were guests enjoying the openhanded hospitality we had come to share.

It did not take long to agree upon a plan of campaign for the morrow. The deadliest foe we were likely to meet with on this expedition, it appeared, was the unobtrusive ground-hog. In consequence one lethal weapon was deemed sufficient protection in view of

all possible encounters. This was handed over to the D. D., who, not being in Holy Orders, ran no risk of incurring any irregularity. It was a master-move of strategy as events proved.

Beating Through Nottawasaga.

Tuesday morning, August 26, dawned bright and full of promise. The vehicle was stored with what provisions were necessary for a day's outing; and our party of five drove out on the Duntroon road at a brisk trot, heading west towards the Blue Hills. As we drew near Duntroon the landscape improved wonderfully. In the distance directly in front of us rose a ridge of limestone formation, which stretches, we were told, across the whole country. It is the same as that which forms the high ground at Lockport in New York State, and through which the Niagara River has, in the course of centuries, worn its way from Queenston Heights to Clifton and the Falls. It traverses somewhat diagonally Nottawasaga township, from south-east to north-west, and reaches Lake Huron to the west of Collingwood.

In many places its eastern edge is not precipitous, but straight ahead of us it stood out like a headland, its rocky face plainly visible. It was certainly a prominent feature in the landscape, and we asked ourselves if it might not well be the rock we were in search of. On reflection however it occurred to us that many such bold prominences were likely to be found along this eastern fringe of the Blue Hills.

Old Indian Earthworks.

At Duntroon Village we turned south down the road between concessions VIII. and IX., to the farm of Mr. William Anderson, to examine an earthwork which Mr. David Boyle has described in the Annual Report of the Canadian Institute (*Session 1888-9, p. 11*). Mr. Anderson brought his work to a stand-still, and cheerfully accompanied us over the ground. He is one of those thrifty and hospitable Scotchmen who seem to think that they can never do too much to welcome their visitors. Very little trace of the embankment is now observable; on the hillside it may be said to be entirely obliterated by frequent ploughing.

Leaving Mr. Anderson's farm (north half lot 23, concession IX, Nottawasaga), we proceeded still further to the south by the same concession line. Our intention was to move into the uplands lower down in the township, and having once gained the heights to be guided by the information we might glean from the resident farmers. It was the safest course to pursue since the region was unfamiliar to every one of the party, even to Father Jeffcott, who had not resided at Stayner over a year.

As we advanced the country became charmingly picturesque, especially towards Glenhuron, and still further to the south, when the eye sought Dunedin and Creemore in the remote perspective. The horizon in that direction was bounded by great rolling hills intersected by deep valleys, the whole under fair cultivation. The slopes presented every variety of tint from the rich yellow of the ripening grain to the sombre green of the mountain gorge. This became more noteworthy when, leaving the concession line, we turned to the west

and toiled upwards along the side road between lots 18 and 19, until at last, safe on the tableland, we skirted for well on to a mile an exceptionally deep and narrow ravine. Its slanting sides, thickly studded with trees, shut out the sunlight and screened from view the waters of the Mad River in its gloomy depths. The name we learned later on, and learned morever that it was appropriate. On the whole the yawning chasm had a forbidding look, and the conviction grew upon us that we were in presence of the Devil's Glen; but in this we were mistaken. The Glen was miles away.

The country we were traversing, after we lost sight of the ravine, grew monotonous; and but a little further on, the road was shut in on either side by the tall timber. In ignorance of our surroundings we proceeded in that happy-go-lucky way which at times leads explorers to discovery and oftener to discomfiture. The fact is we had met nobody for some time whom we could consult. Coming upon a newly built shanty, in a recent clearing, with every evidence of its being occupied, since its modest farm-yard was tenanted by a few stray fowls, one of the party made bold to enter the premises, but found not a soul within call. Someone thereupon suggested that we should picnic there in the woods, which suggestion was speedily acted upon. Between sandwich and sweetmeat the question, What next? was debated, and it was unanimously decided that we should keep on towards the west.

More Light.

Ten minutes drive, or less, brought us out of the woods, and in view of a number of field labourers at work. From them we learned that we were not far from Singhampton, but nothing more. So to Singhampton, situated on the county line, we drove. Upon enquiry, the proprietor of the village hotel informed us that he had often heard it said that some miles up the country there were "rocks and caves." No one else seemed to have a clearer notion on the subject, so without loss of time we resumed our drive, but this time towards the north, along the dividing road, with Grey county to the left and Simcoe to the right.

It will be understood, from what has been said, that we were travelling a few points west of north along the plateau or table-land, high up above the level of eastern Nottawasaga. Our surroundings were now tame enough, the country around as far as we could see being gently undulating. The only agreeable break in the monotony of the prospect was Pleasant Lake, which we left behind us on our right. It lies close to the road a placid little sheet of water covering, as well as we could make out, a considerable area of lots 21 and 22, concession XII., Nottawasaga. From here on we met but one single human being on foot, apparently a tradesman, whom we accosted forthwith. He gave us, to our great relief, very precise directions to follow in our quest. We had to keep on the county line until the road came to an end, and then proceed on foot some seventy rods (so I understood), and we would come upon "the rocks and caves." After an exchange of civilities with our informant, we pushed on with more buoyant hopes, and with something definite in purpose.

For the use of any who might be tempted to explore in this direction, it should be noted here that the cross-road marked on the maps between lots 27 and 28 does not really exist, while there is one open, which is not marked, between lots 26 and 27. It must have been a little beyond lot 27, if our calculations were correct, that the road forming the line between the two counties, after a slight rise, came suddenly to an end. It was fenced across, but a gate opened on the left into a field, and a meandering road led down to a barn in a hollow. As for dwelling, there was none in sight.

The Devil's Glen and the Standing Rock of Ekarenniondi.

Three of the party kept on straight on foot across the field, Father Quirk, the D.D. and myself. Father Jeffcott and Mr. John Purcell remained near the carriage. There was quite a perceptible rise in the ground, an uneven field liberally bestrewn with boulders of various shapes and sizes. Ahead, the woods, which began with out-lying, straggling clumps of trees, but which, as we advanced, grew denser and denser and more impenetrable on account of the thick underbrush, shut out from view all that might prove of interest beyond. A narrow but well beaten path to the left first lured us on, but after a few rods it led so rapidly downwards, no one knew whither, that it was abandoned for the higher ground to the right.

We scattered imperceptibly to right and left as we moved forward, and whether it was that the trail of the ground-hog lay broad on the wold, or that some nobler game had been descried, certain it is that about this time the Doctor, who, thanks to his youth, was by far the most active member of the trio, disappeared; nor was his absence noticed for the nonce. To be plain, my reverend companion and myself had quite enough to do to push through the matted undergrowth, and make our way laboriously over fallen trunks which crumbled under pressure as we sought a foothold, without troubling ourselves about more extraneous matters. A glimpse now and then through the branches of the taller trees showed a scrap of blue sky, or a patch of that misty, undescribable neutral hue which betokens a void, a falling away of the ground and the presence of wooded hillsides beyond. It was but a fleeting, deceptive vision.

After battling against innumerable petty difficulties for what I thought was a reasonable time, I am ashamed to say, I was the first to cry enough, and to assure Father Quirk that all that was ahead of us then would be there as certainly on the morrow, when, thoroughly rested, we could return directly to the spot, now that we knew where it was. As we emerged from the thicket we presented a truly woebegone appearance. Flushed with our vain struggles and bespangled with burs, we bore, moreover, the marks of many an encounter with branch and bramble. Crestfallen at our failure, we returned demurely enough to the carriage. Then it was that we missed the Doctor. We waited patiently, I do not know how long, that he might not be unduly hurried in his explorations; when, finally getting anxious, the party—Father Jeffcott, of course, leading the chorus—sent up a succession of war-whoops that must have uncomfortably impressed the Petun warriors in their graves. But no Doctor. Not even did

the echoes deign to answer our call. Another wait, and the shout was renewed with like results. To make the best of the delay, for time was wearing away and we were anxious to turn homewards, we assumed restful postures on boulder, sward, or fence, and entertained each other with the recital of our individual adventures.

On a sudden, a shout, faint in the distance, went up, "Rocks and Caves!" Every eye turned to the spot whence the sound came, and we caught sight of the Doctor, standing just where we had emerged some time before, in unconventional ecclesiastical attire, waving his arms wildly and shouting again and again, "Rocks and Caves!"

We, at first, exchanged incredulous glances, and had some misgiving lest, in return for some innocent banter that afternoon on the habits of the American marmot, we should be as innocently inveigled into a purposeless walk back over already twice trodden and difficult ground. We wronged his candour. In common decency, we could not slight the earnest appeals of the young divine. So, pulling ourselves together for a renewed effort, we started to join him.

When within conversational distance we felt more reassured, and following blindly, in Indian file, over easier ground near a fence to the extreme right, we bravely penetrated the thicket, and in a few minutes came out into the open on the opposite side.

What a wonderful sight! We were speechless for an instant. We stood on an elevated ledge, with deep *crevasses* penetrating at acute angles the wall of rock. Underfoot they seemed to be bridged over by roots and accumulated mould, but yawned wide below. The Doctor had explored some from the lower level—how far he had made his way into their recesses I do not now recall. These were the "Caves."

But the wild, weird scene beyond! At our feet, below the ledge, countless huge rocks lay scattered, but with a certain order. I cannot describe the effect better than to suppose that some Titan had pushed over many walls, one falling on and overlapping the other, with the different courses of masonry sundered, but still juxtaposed, and in gigantic layers. The whole was bare of vegetation; no moss, nor fern, nor creeping vine to shroud their nakedness, but masses of stone lying whitened by time as bones in the desert. Across these rocks lay prone, in every direction, whole trunks of trees bleached by alternate rain and sunshine. These were the "Rocks," and they formed a waste of utter desolation, so tersely and fitly described by the uncanny name "The Devil's Glen."

To take in all these details, one by one, required time. We scanned the nearest features first; but as we looked further towards the outer verge of this valley of confusion, hundreds of feet away, another object, hitherto unheeded, met our gaze.

Stark from the field of shapeless ruins and on the steep slope of the hill, detached from all around, rose a rectangular mass of rock of monumental proportions, with a base a score or so of feet in breadth, and an elevation of thirty or forty. Firm on its foundations, it alone stood erect, where all else had yielded to the shock, and crumbled when very earth had rocked and quaked.

From our outlook, on a higher level, it was seen at a disadvantage. But as the slope, where it was securely stepped, sank away

rapidly; from the depth of the gorge far down on our left it must have towered up in, seemingly, far nobler proportions.

In general appearance, it resembled nothing so much as a ruined keep. Its outlines softened by decay, the rifts in its masonry widened by winter frosts, rents here and there along its face from base to summit, all spoke plainly of the wear of centuries. To heighten the illusion, from the only face visible to us, portions of the rock had fallen away, leaving in outline the embrasure of a great mediæval fire-place, if not of a dismantled portal. The Rock was deftly pointed off in courses by Nature, and slightly battered inwards from foundation to crest, giving it all the appearance of the last remaining tower of a ruined castle.

Such was it to our eyes; but to the eye of the superstitious Huron, it was the Rock near which the shades of their deceased braves passed on their way from earth to the land of souls. It was on the face of that Rock that great deeds were recorded in the sign-language and war-paint of the tribe, their heroes extolled, or perchance a message from the living to the dead inscribed. It was, in fine, *ekarenniondi*, or the Standing Rock of the Petuns, "lying"—as the Huron pointed out to Brébeuf the Blue Hills—"lying towards the setting sun."

The exact position of Standing Rock is on the very western limits of what we judged to be lot 29. Taking up a position on the ledge in true alignment with the county road quite traceable to the eye for a long distance across the rising hills to the north, a mile or so away, we clearly perceived that the line dividing the two counties would pass at the very foot of the Rock to the west, leaving it wholly within Nottawasaga township, Simcoe county; while the Devil's Glen extends well into Grey, being situated, consequently, partly in both counties.

Due credit must be given to Reverend Edward Kerby, D.D., now ordained, for being the first of our party to set foot within the Glen. Had it not been for his tenacity of purpose it is certain that we should not have come upon the Standing Rock of the Petuns that day; while plans based on the promise of the morrow have been known eventually to fail, as meanwhile some unforseen occurrence called for an indefinite postponement.

In conclusion, I wish to put on record a grateful acknowledgment of the kindness and urbanity of the Grand Trunk Railway officials, and to none so much as to Mr. Henry R. Charlton are we indebted for the general success of the expedition. He did everything in his power to render our task easy and agreeable.

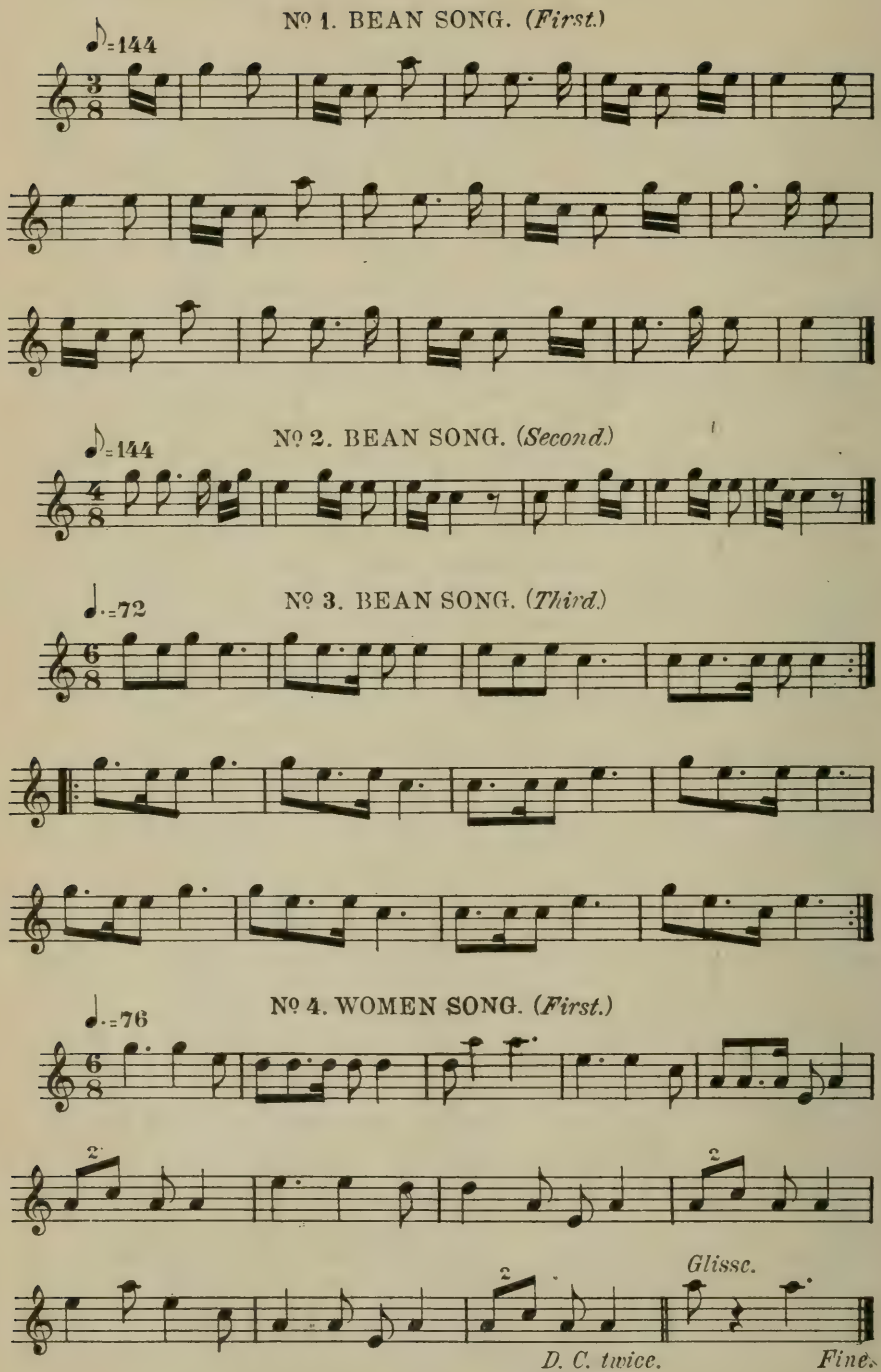
Loyola College, Montreal, February, 1903.

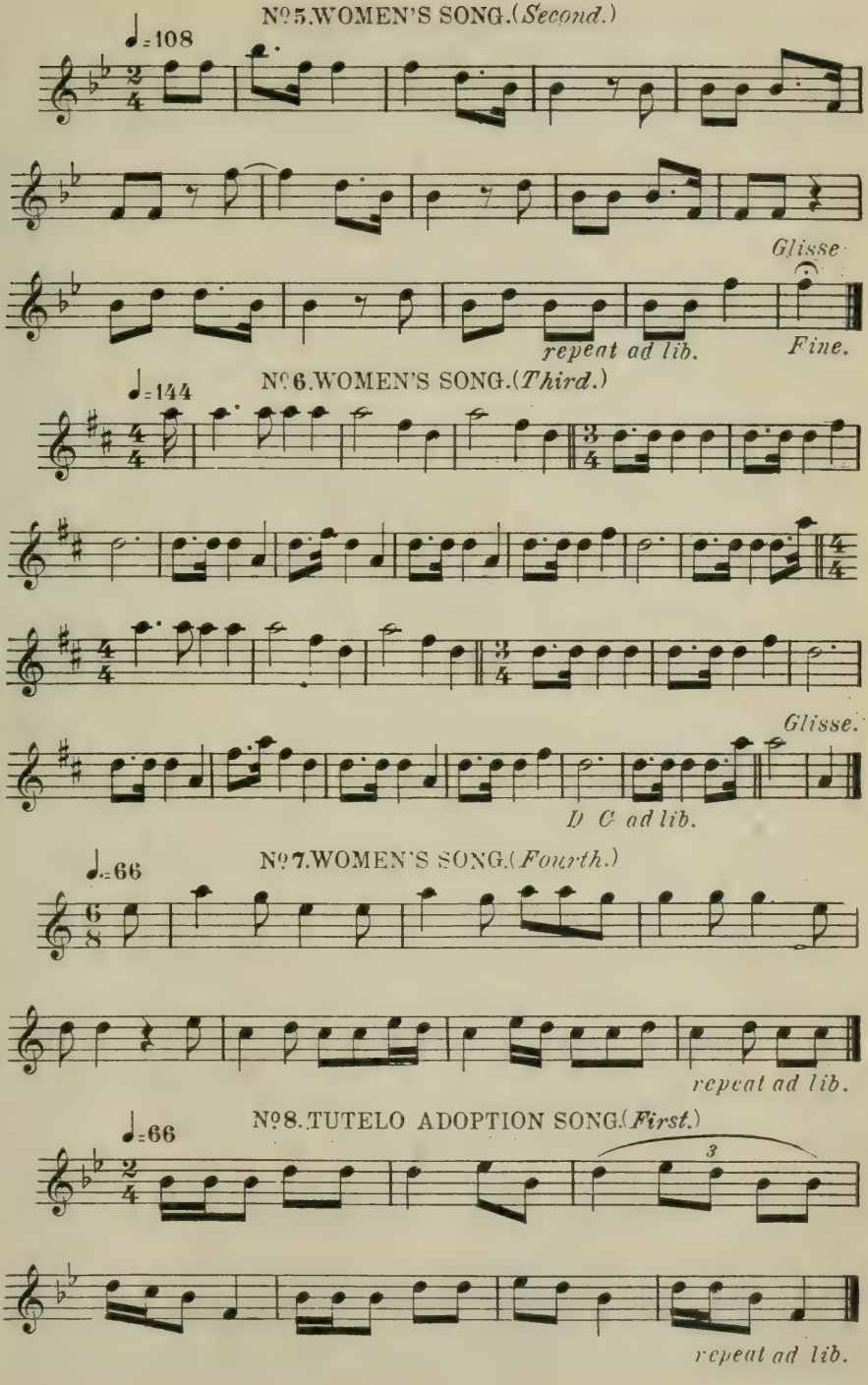
IROQUOIS FOLK SONGS.

A. T. Cringan, Mus. B.

Much interest has been manifested in the series of investigations into the subject of the music of the Pagan Iroquois, of which a full account was given in the Archaeological Reports for 1898-9. These resulted in sixty of the most representative melodies connected with the various ceremonials of the Senecas being secured and transcribed into musical notation. This number did not by any means exhaust the store of traditional songs possessed by the Senecas, who form a single tribe only of the "Six Nations." Each of the other tribes possesses an equally large store of songs containing special characteristics which distinguish them from those of other tribes. The various groups of songs appearing in this issue have been contributed as typical examples of the traditional songs of the Tutelo, Delaware and Onondaga Indians. Every effort has been made to ensure absolute correctness of musical notation. The songs were sung into the Graphophone by "Red Cloud," who is probably the oldest and most reliable authority on this subject to be found on the Indian reservations of Ontario. The graphophone records were then subjected to an exhaustive analysis, several hours being often spent on a single song, until the actual pitch and length of every note was positively defined. An investigation of the thirty-three melodies here given reveals several interesting peculiarities of tonality and rhythm, which aid materially in enabling the student to trace the gradual development of the musical concept from the most primitive elements.

Rhythm.—This is the most important element in the music of all primitive races; is, in fact, the only element employed in the music of races which rank lowest in the scale of intelligence. Among these the only musical instruments to be found are such as are usually classified as instruments of percussion. They are used solely as a means of marking time for the dance and are incapable of producing any determinate musical sound. This class includes rattles, clappers and drums of many kinds. The Iroquois possess one instrument belonging to the wood, wind class in the shape of a flute, but it does not play a prominent part in their musical development. Of rattles and drums they have several, but the voice is almost invariably used in conjunction with them during the ceremonies in which music forms an essential adjunct. The manner in which the Iroquois use their voices indicates a much higher degree of musical intelligence than that suggested above. The rhythmical structure of the Iroquis songs is strongly characteristic of the people themselves. Phrases of three or five measures in length are freely used, whereas composers of conventional music restrict themselves to phrases containing an even number of measures. The rhythmic faculty is highly developed in the Indian mind, and his melodies abound in subtle rhythmic combinations which would, in some instances, afford a severe test of the technical training of an average body of modern choristers. He prefers to express his musical ideas


№ 1. BEAN SONG. (First.)
♪=144
№ 2. BEAN SONG. (Second.)
♪=144
№ 3. BEAN SONG. (Third.)
♩.=72
№ 4. WOMEN SONG. (First.)
♩.=76
2
2
2
Glisse.
D. C. twice.
Fine.


No 5. WOMEN'S SONG. (Second.)
♩ = 108
Glisse
repeat ad lib.
Fine.
No 6. WOMEN'S SONG. (Third.)
♩ = 144
Glisse.
D C ad lib.
No 7. WOMEN'S SONG. (Fourth.)
♩. = 66
repeat ad lib.
No 8. TUTELO ADOPTION SONG. (First.)
♩ = 66
3
repeat ad lib.

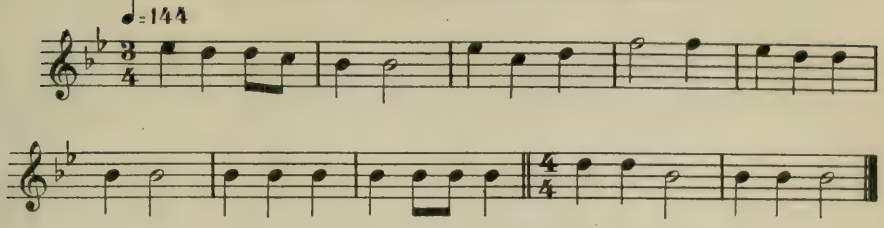
in his own peculiar way, which he doubtless considers vastly superior to that of the white man. It must in all fairness be conceded that the modern hymn tune, although set to verses in the native language, has a decidedly insipid effect when sung by an Indian in comparison with his own vigorous native melodies.

Tonality.—In a previous report the opinion was expressed that the Iroquois songs were based almost entirely on the pentatonic scale. This scale is practically the modern major scale with the fourth and seventh omitted. As the employment of these two tones necessitates the introduction of the interval of the semitone it is commonly surmised that primitive races have found this interval somewhat difficult to sing and have consequently avoided it. An examination of the melodies here published warrants the opinion that Iroquois song is based on something even simpler than the pentatonic scale. In a number of the melodies no other tones are used than the three, Do, Mi and Sol, which form the Tonic or fundamental chord of the scale. These would seem at first to have been combined with the simplest rhythmic elements, which would for a time satisfy the demands of the undeveloped musical intelligence. Examples of this elementary combination may be found in Nos. 2, 3, 5 and 6. The next stage in melodic development appears to have been the addition of La, the sixth of the scale. The mental effect of this tone, as was first demonstrated by the late Rev. John Curwen, is intensely sad and plaintive. This addition to the three tones of the Tonic chord, which embody the primary qualities of ruggedness and strength, marks the first introduction of the emotional element into the songs of the ancient Iroquois. This may be observed in Nos. 1, 14, 15, 22 and 23. The interval of the major second above the fifth of the scale having now become familiar to the ear, the next logical development would seem to have been the addition of the tone Re, which occurs at the same interval above the Tonic. It may here be observed that in none of the melodies do we find this tone without the sixth, La, being also present. This completes the tonality of the pentatonic scale of which examples are found in Nos. 4, 7, 10, 11, 12, 15, 25, 27, 29 and 31. Two tones are still required to complete the major scale, viz, Fa and Te, but, as these entail the addition of a new and comparatively difficult interval, their introduction is made with caution. The first to be admitted has evidently been Fa, as it occurs without Te, but, in the major mode, the latter is not found without the former. This may be observed by a comparison of Nos. 8, 9, 13, 17, 19, 26 and 28 with Nos. 18, 30 and 31.

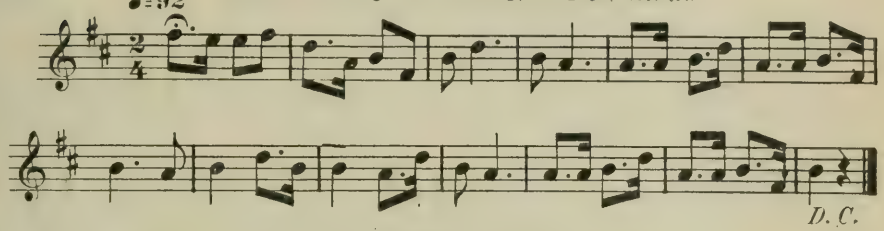
"Bean Songs."

The first group consists of three songs used in connection with the Bean, or Peach stone, games described by Mr. Boyle in pp. 126-8 of the Archaeological Report for 1898. In the first we have a melody exceedingly simple in construction. It consists of a phrase of four measures, which is repeated with slight variations, ad libitum. With the single exception of the sixth of the scale, which appears as the final note of the third measure,

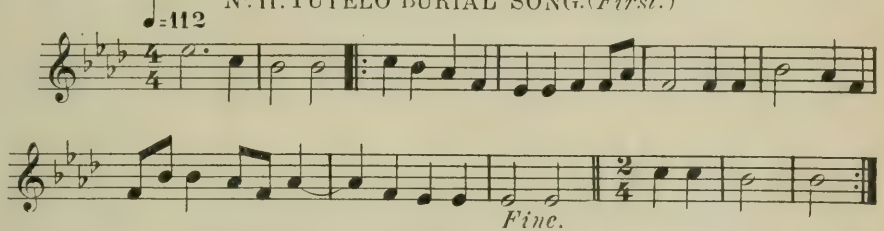
No. 9. TUTELO ADOPTION SONG. (*Second.*)



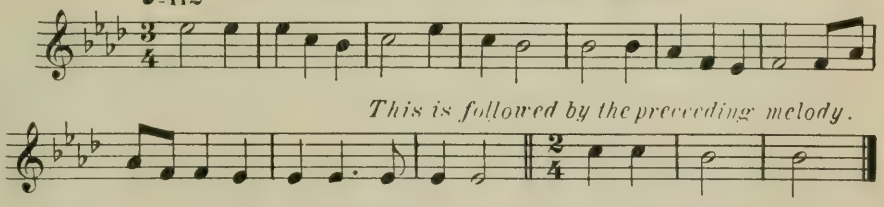
No. 10. TUTELO ADOPTION SONG. (*Third.*)



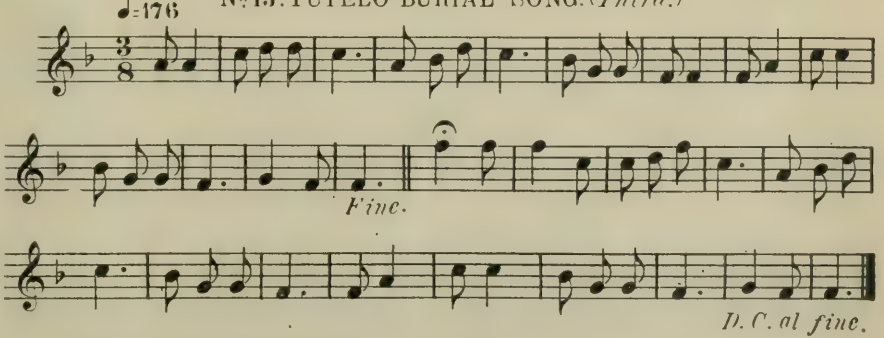
No. 11. TUTELO BURIAL SONG. (*First.*)

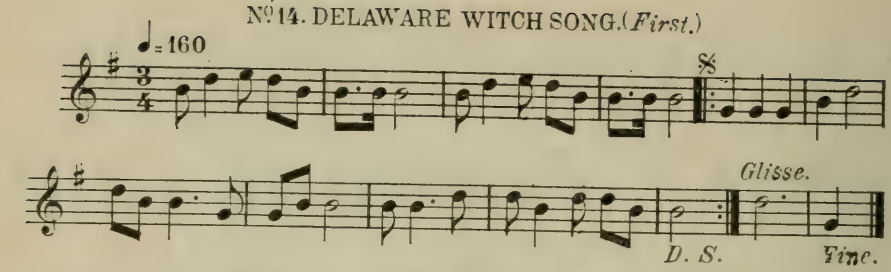


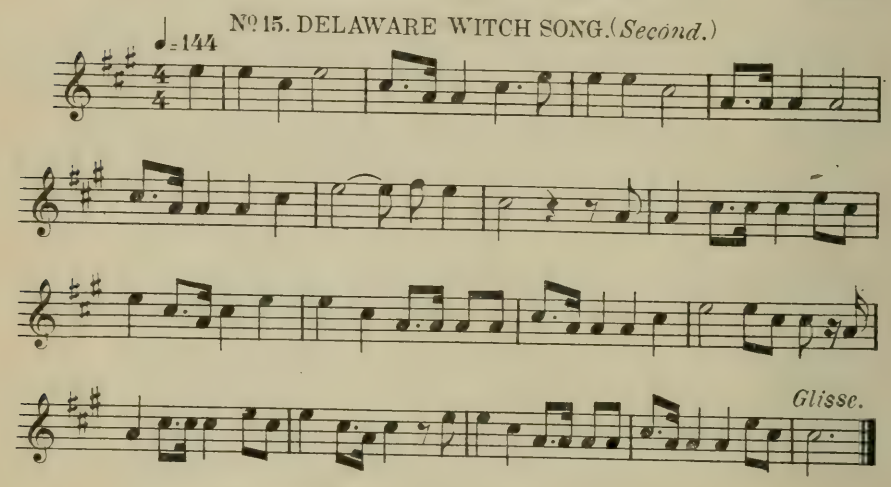
No. 12. TUTELO BURIAL SONG. (*Second.*)

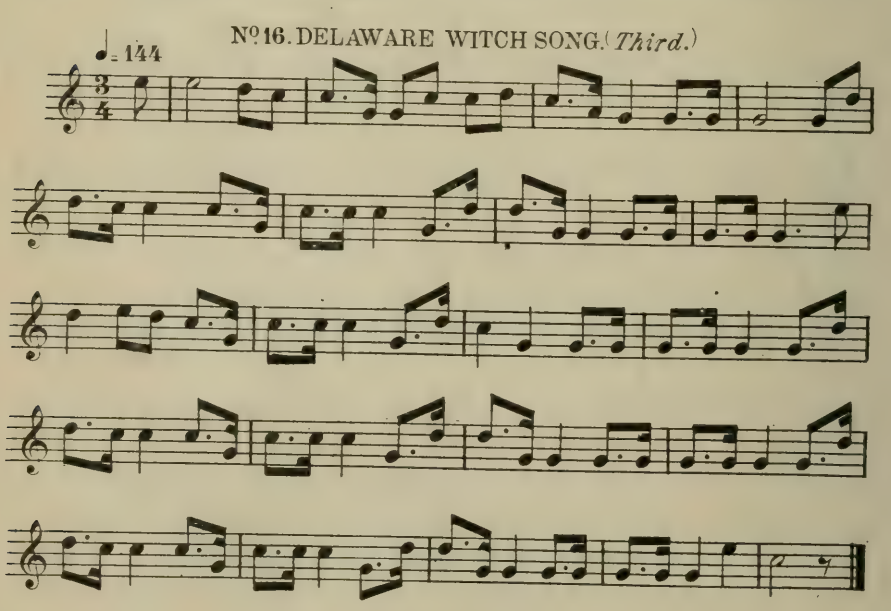


No. 13. TUTELO BURIAL SONG. (*Third.*)




Nº 14. DELAWARE WITCH SONG. (*First.*)
♩= 160
Glisse.
D. S.
Fine.


Nº 15. DELAWARE WITCH SONG. (*Second.*)
♩= 144
Glisse.


Nº 16. DELAWARE WITCH SONG. (*Third.*)
♩= 144

the melody is confined to the three tones of the tonic chord, viz., the first, third and fifth of the scale. In the second and third songs of this group the melody consists entirely of these three tones. Variety is secured by the introduction of slight rhythmical alterations, which add materially to the interest and prevent the monotonous effect which would otherwise result from the repetition of the tones of a single chord.

Women's Songs.

The first song of this group presents several features of interest in tonality and rhythm. It is based on the ancient form of the minor scale, which lacks the characteristic "leading note" of the modern minor scale. The absence of the second and sixth reduces the number of notes to five and avoids the interval of the semitone, which seems to find little favor among primitive races. The first measure of the second line presents an example of two notes of equal length in the beat where three are naturally expected. This effect is repeated at the end of each phrase of three measures. The final measure contains the characteristic double "whoop," which is the favorite method employed by the Indian to emphasize the termination of his song.

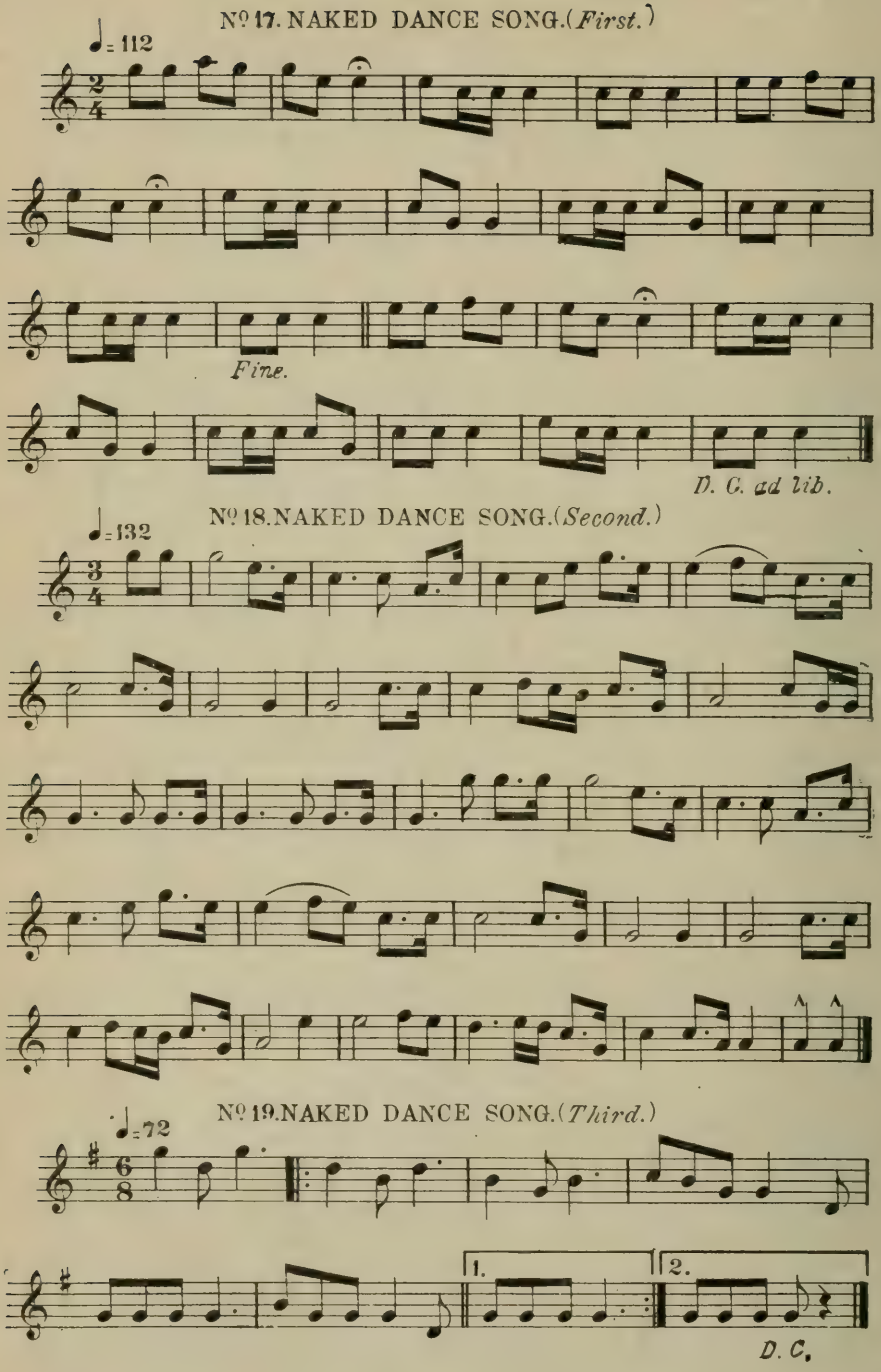
The second song of this group is very simple in its construction. It consists of the notes of the fundamental chord of B flat major in phrases of sharply defined rhythm, which are reiterated as often as may be considered desirable and then concluded with a single whoop.

In the third song we have a striking example of mixed rhythm. The opening phrase consists of three measures of quadruple time commencing on the high A. These are followed by nine measures of triple time, which completes the first half of the melody. The second half is a repetition of the first with the exception of the variation introduced in the second measure of the last line. Although confined to the tones of the fundamental chord, this melody is decidedly animated and rousing in effect, on account of the energetic and varied character of the rhythm.

A bright and pleasing melody forms the fourth number of the group. In rhythm it is quite modern and conventional, but the favorite tonality of the pentatonic scale is rigidly maintained.

Tutelo Adoption Songs.

The songs comprising this group are, as their title would indicate, those which are associated with the ceremonies attendant on the admission into the Tutelo tribe of a new member by adoption. The first song (No. 8) consists of a simple musical sentence of seven measures only, which is repeated as often as may be required. It contains an example of triple time introduced where the normal measure is duple. This mixed rhythm is also noticeable in the succeeding melody (No. 9), in which two measures of quadruple time are added to a normal sentence of eight measures in triple time. Another noticeable peculiarity is found in the commencement on the fourth of the scale.


Nº 17. NAKED DANCE SONG. (First.)
♩= 112
Fine.
D. C. ad lib.
Nº 18. NAKED DANCE SONG. (Second.)
♩= 132
Nº 19. NAKED DANCE SONG. (Third.)
♩= 72
1.
2.
D. C.

Tutelo Burial Songs.

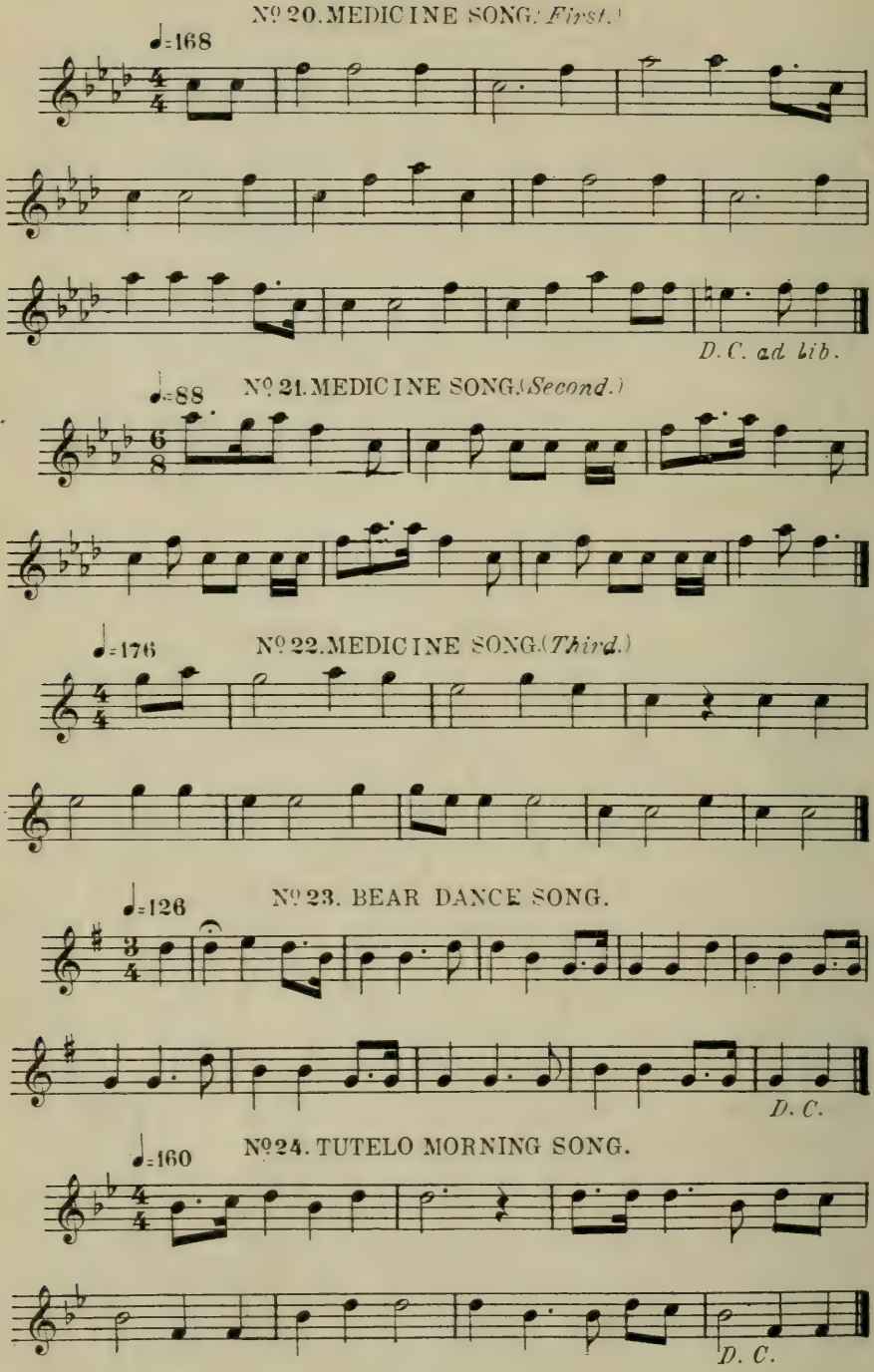
In the first song of this group (No. 11) the first two measures form an introduction such as seems to be characteristic of Indian ceremonial songs. The obvious intention of the singer seems to be to command the attention of his audience by the utterance of one or more high notes with the full force of his voice. Although the following song (No. 12) is given as a separate number, it seems to be closely associated with No. 11 in actual use. The same phrase of three measures of two-four time appears in both. When this has been sung in the second melody, a return is made to the third measure of the previous number, which is repeated to the end. The third number of the group is among the most musical examples of the entire collection. The construction of the rhythm is quite regular and might readily be accepted as part of a modern waltz. In effect it contrasts strongly with the previous numbers of this group. The tonality is distinctly that of the major mode and the pentatonic scale is abandoned in so far as to admit of the introduction of the fourth of the scale with the consequent interval of a semitone between A and B flat.

Delaware Witch Songs.

The most noticeable peculiarity observable in No. 14 is the syncopated rhythm which marks the opening measure and is reproduced frequently throughout the melody. The effect is decidedly inspiriting when sung with the intensity of energy with which the Indian invariably seeks to express the sentiment embodied in his native songs. In No. 15 we have another example of clear-cut, vigorous rhythm resulting in a melody of much brighter character than would naturally be expected from the meagre tonal material of which it is composed. With the exception of the F sharp in the seventh measure the melody is confined to the three tones of the tonic chord. In the final number of this group may be observed one of the most distinctive features characteristic of the music of all primitive races. A simple musical figure is announced then reiterated ad libitum. The main source of pleasurable interest lies in the alteration, however slight, of one or more notes in each successive repetition. Of logical musical development, such as is to be found in conventional musical composition, there is none. The Indian is thoroughly satisfied with his restricted means of embellishment, and it is questionable whether the more comprehensive devices of the paleface musician would afford him the slightest satisfaction.

Naked Dance Songs.

The first of this group (No. 17) presents a fine example of the characteristic noted in the previous melody. It is evenly divided into four-bar phrases, but these are not repeated in regular order. Three distinct phrases are used throughout the course of the melody, but the order in which they are employed seems to be a matter of no consequence whatever. Any one may be followed by any other one and the variety secured by this primitive device


Nº 20. MEDICINE SONG. (First.)
♩=168
D. C. ad lib.
Nº 21. MEDICINE SONG. (Second.)
♩=88
Nº 22. MEDICINE SONG. (Third.)
♩=176
Nº 23. BEAR DANCE SONG.
♩=126
D. C.
Nº 24. TUTELO MORNING SONG.
♩=160
D. C.

seems to afford ample gratification to the singer. The second member of this group (No. 18) is, in one respect, the most noteworthy met with thus far. It commences in C major and ends in its relative A minor. For the first time every note of the scale is employed. The seventh is, however, very sparingly used, as it occurs as a sixteenth note only in the fourth measure of the second line, and once again, when this measure is repeated. Reference has already been made to the employment of vociferous prelude as a means of commanding attention to the song which follows. This is strikingly evident in No. 19, as the first measure does not form an integral part of the melody, nor does it re-appear in the repetition. The melody proper consists of three-bar phrases throughout and is otherwise quite regular in construction.

Medicine Songs.

In the groups of songs associated with the dance rhythm necessarily furnishes the most essential element. In the group now under discussion the rhythmic element is secondary to the emotional. The time-values accorded to the notes in the musical notation give a merely approximate idea of the effect of the songs. All three are beautiful examples of musical recitative in which music is used simply as an effective adjunct to render declamation more emphatic. There is an element at once plaintive, commanding and dignified in all three. When sung by the "Medicine Man" during his efforts to drive off the evil spirit from the sick their effect must be intensely weird and imposing. No 20 presents the first example of a minor key with its leading-note and No. 21 of a minor key with its supertonic.

Bear Dance Song.

This presents two distinctive features already noticed, viz., the loud-voiced prelude and the continued reiteration of the notes of the Tonic chord. It may be mentioned in passing that there is not the slightest affinity between this and the "Bear Dance Song" of the Senecas, published in the Archaeological Report for 1898.

Tutelo Morning Song.

This consists of a simple phrase, oft repeated, in which four tones only of the scale of B flat major are employed.

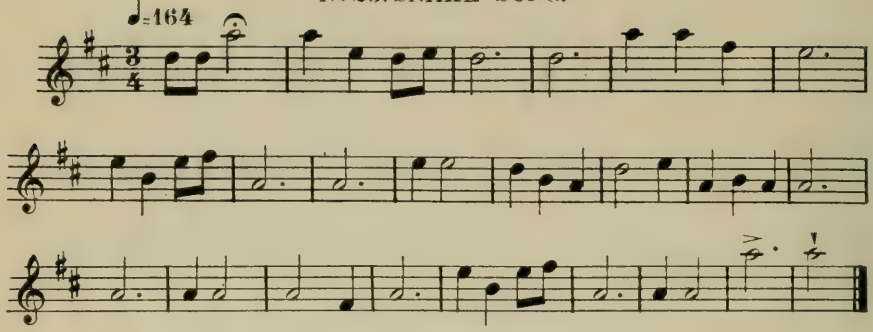
Snake Song.

In this the 'pentatonic' element is again clearly in evidence as is also the loud-voiced prelude already described. There is no lack of rhythmic verve and abandon essential to the accompaniment of the vigorous dance with which it is associated.

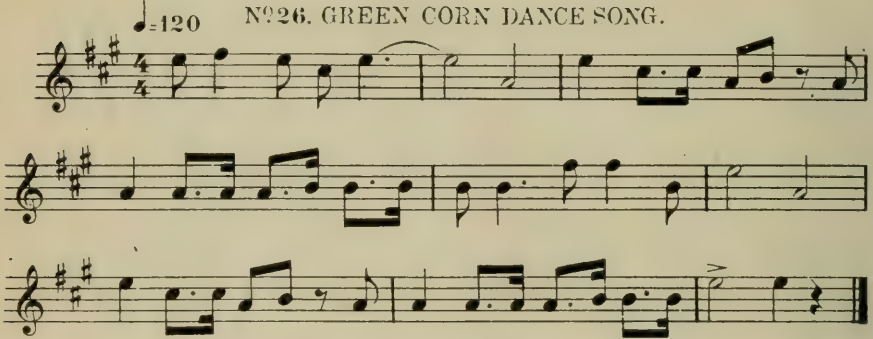
Green Corn Dance.

"At the new moon of the green corn ye shall give a thanksgiving dance" Thus spake the Great Spirit, and his command is faithfully observed by the Pagan Iroquois to this day. Each

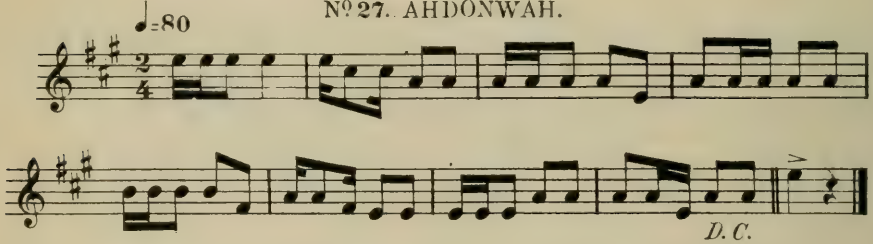
Nº 25. SNAKE SONG.



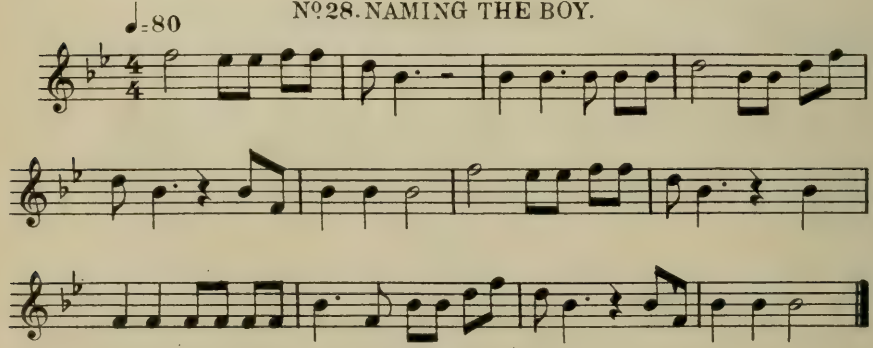
Nº 26. GREEN CORN DANCE SONG.



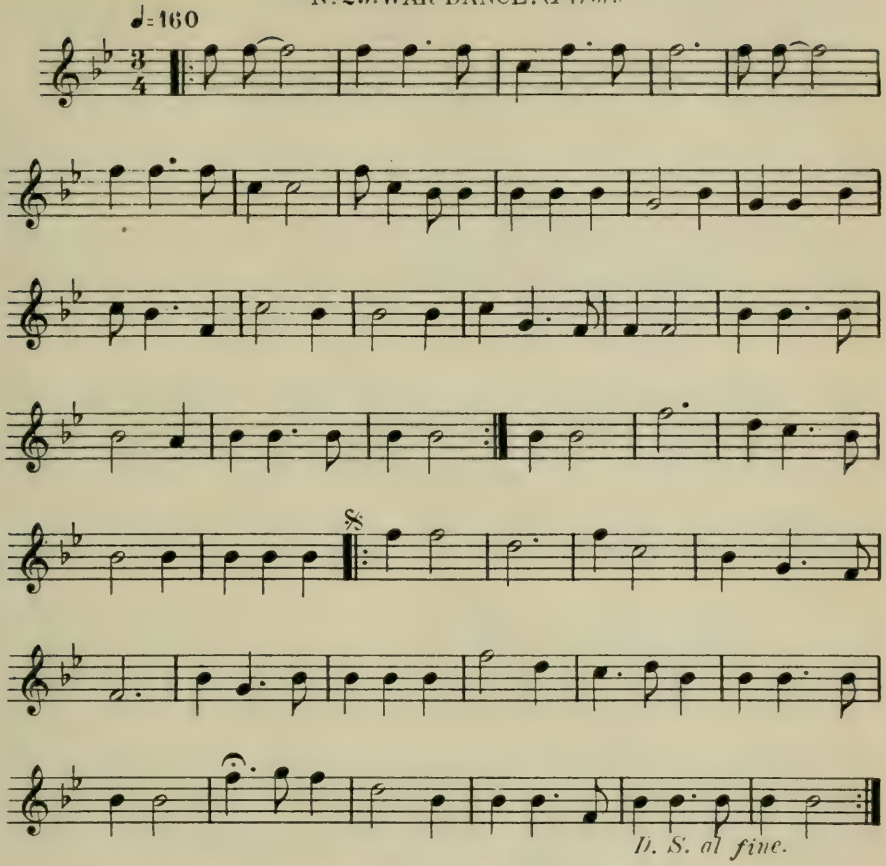
Nº 27. AHDONWAH.



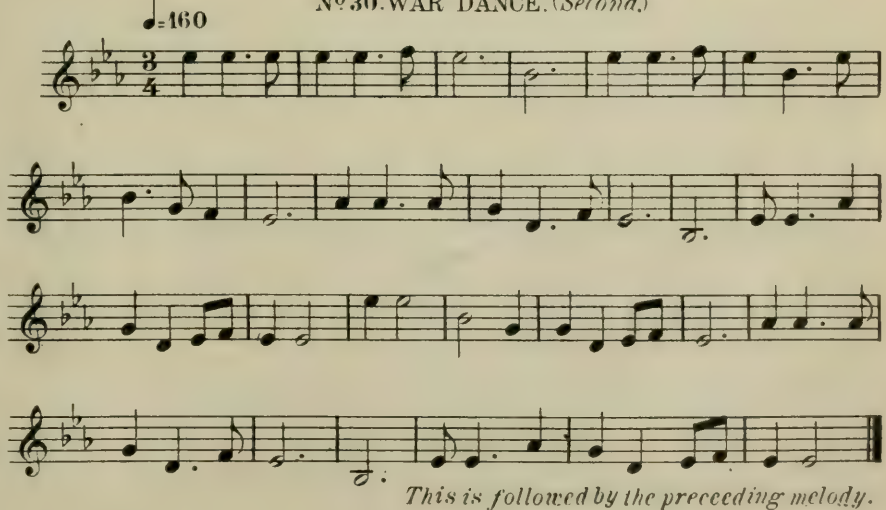
Nº 28. NAMING THE BOY.



Nº29. WAR DANCE. (*First.*)



Nº30. WAR DANCE. (*Second.*)



This is followed by the preceeding melody.

nation seems to have its own distinctive songs for this important festival, as there is nothing in common between this Onondaga melody and that of the same name belonging to the Senecas. This is a vigorous melody with syncopated rhythm and a liberal employment of short dotted notes, which materially enhance the animation with which it is sung.

Adonwah.

The title literally means "Song of joy," and is applied to a numerous class of songs, in which the singer does not mean anything in particular, but merely gives expression to his gladness in the same manner as do the song birds of the forest.

Naming the Boy.

In speaking of the element of "joyousness" in Indian songs Mr. Boyle, in a former report, has said : "I have not heard any that might be so characterized." In this song we have something which, if not joyousness, resembles it very closely. It is an evident expression of elation consequent on the naming of the latest infant addition to the army of braves.

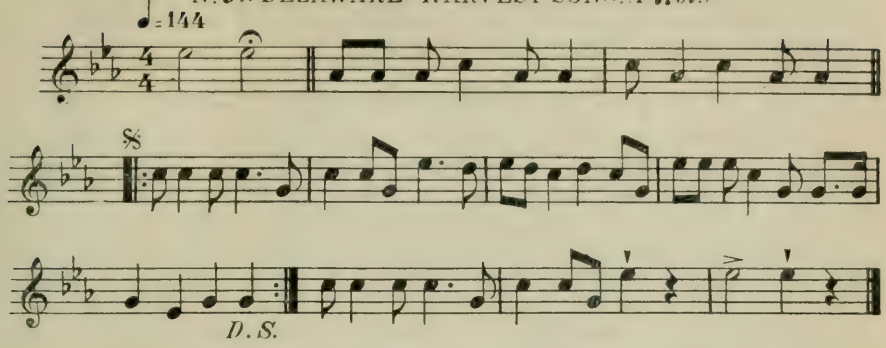
War Dance Songs.

The two songs comprising this group are in reality one, since No. 29 was sung by "Red Cloud" as the latter part of No. 30, although he had previously given it as a separate song Both possess in a marked degree the most striking characteristics found in the more serious tribal songs already discussed. The loud prelude is now extended to eight measures in length, as if to ensure the close attention of all now that a matter of life and death is under discussion. This is followed by a melody which fairly glows with intensity of feeling well calculated to arouse the thirst for blood in the heart of every brave. The tempo increases in rapidity until the notes become almost lost in the wild frenzy of delirium. When this has reached a climax a new subject is introduced in the second melody, which appears in the key of the sub-dominant, at all times expressive of an increased degree of solemnity. Even this is insufficient to express the required depth of meaning. For the first time we have the sharp, sensitive seventh of the scale in juxtaposition with the sombre fourth. The resultant interval of the diminished fifth, however familiar to civilized ears, is here intensely dramatic in effect owing to the extreme rarity with which it is employed. This mood is quickly over, a decision is arrived at, and again the exciting strains of the first song are repeated with increased vigor, which cannot fail to arouse even the most indifferent of the braves, or strike terror into the hearts of their foes.

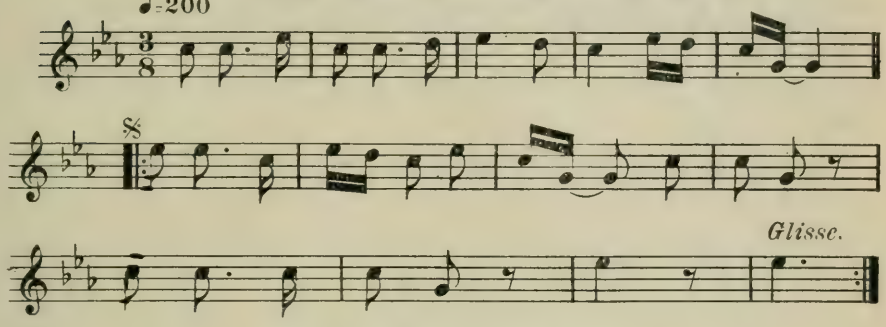
Delaware Harvest Songs.

Here we have two melodies overflowing with delight consequent on the successful close of the harvest. This is expressed

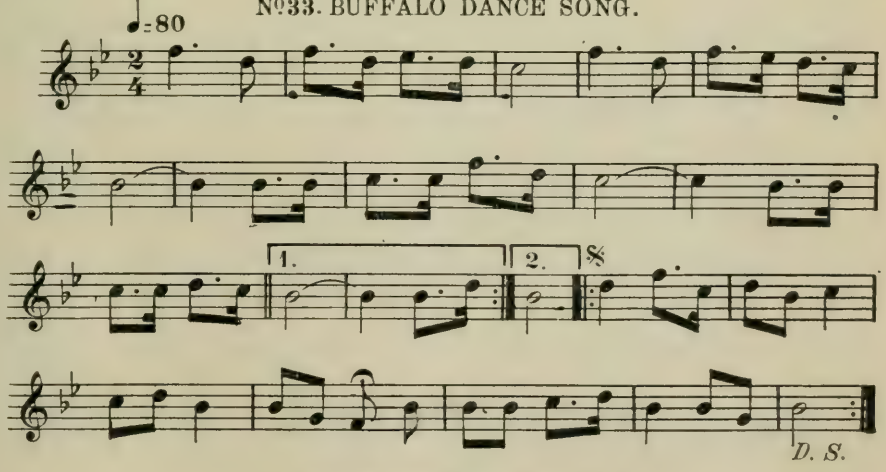
No31. DELAWARE HARVEST SONG. (*First.*)



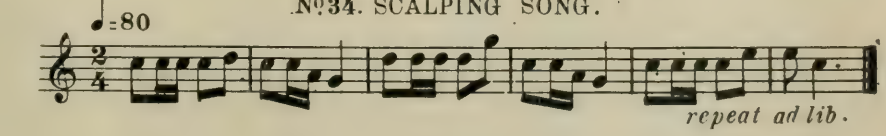
No32. DELAWARE HARVEST SONG. (*Second.*)



No33. BUFFALO DANCE SONG.



No34. SCALPING SONG.



in a manner at once simple and unaffected. Syncopated rhythm abounds, any interval is employed, the semitone being introduced with a freedom bordering on recklessness, and each melody is concluded with a long drawn out whoop.

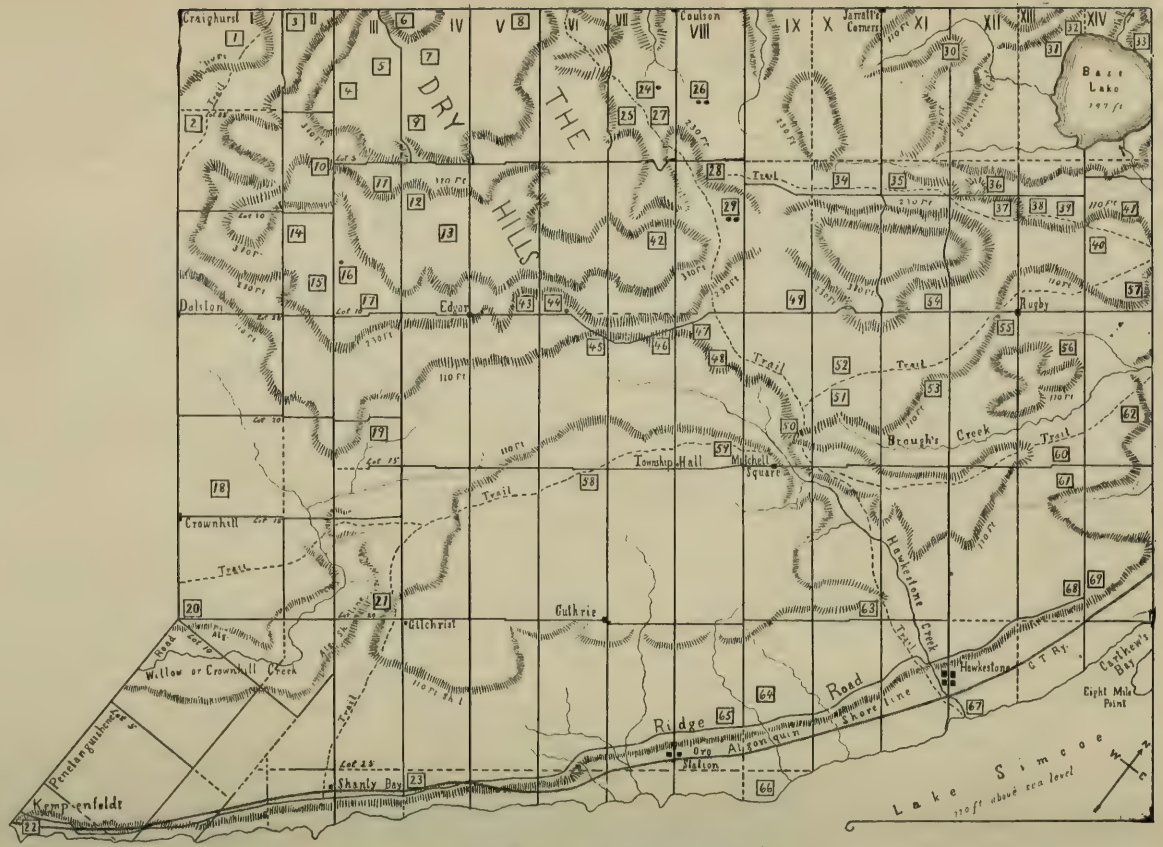
Buffalo Dance Song

This melody does not possess a single marked characteristic of Indian song until the double bar is reached in the third line. With all due respect to "Red Cloud" one cannot resist the conclusion that he has unconsciously reproduced a strain of some camp meeting hymn assimilated while fraternizing among his kin who have renounced Paganism. The second part is identical, note for note, with the "Scalping Song," as contributed by "Kanishandon" to the report of 1898. This discrepancy provides an additional, though unconscious, proof of the wisdom of the Hon. Minister of Education in empowering Mr. Boyle to secure all available examples of Indian tribal melodies while yet they may be had.

NOTES ON SITES OF HURON VILLAGES IN THE TOWNSHIP OF ORO, SIMCOE COUNTY, ONTARIO.

By Andrew F. Hunter, M.A.

The township report submitted herewith is the fourth in a series intended to cover the district once occupied by the Hurons, the townships of Tiny, Tay and Medonte having successively formed the subjects of preceding reports. When collected they form a connected story of some portion of the remains of this remarkable nation of aborigines, unique in mortuary practices, agricultural methods, myths and other characteristics. There is every reason to believe that the other townships in the Province possess an interest for the archaeologist equal to these townships of the Hurons. There are more than 500 organized townships in Ontario, and each promises work enough for the entire time of a skilled archaeologist without his going beyond its bounds The large amount of early historical literature, however (including the narratives of Champlain, Sagard, Bressani and the Jesuit Relations), which is devoted to these townships of the Hurons, and which is to be found about no others in the Province, makes them especially interesting. One of the chief objects of making a systematic examination of them, archaeologically, is to throw as much light as possible upon this literature, and it is important that this thorough examination should be completed before the facts are beyond recovery.



MAP OF THE TOWNSHIP OF ORO (SIMCOE COUNTY).

Explanations.—The small squares indicate the position of the different village sites, and the enclosed number in each refers, etc., etc.

INTRODUCTION.

Physical Features.

A narrow, swampy basin crosses the centre of Oro from east to west, and divides the township into two nearly equal parts. The drainage from this basin flows in three directions. That of the westerly part goes by the Willow or Crownhill Creek to the Nottawasaga River; the Hawkestone Creek drains the centre into Lake Simcoe, and Brough's Creek takes the drainage of the easterly part to Shingle Bay, near the Narrows of Lakes Simcoe and Couchiching.

In the south half of the township the land is gently undulating and does not reach a height of more than 250 feet above Lake Simcoe, which is 720 feet above sea level. The ground in this half was wet in many places when forested, and except in its easterly parts it contains but few Huron village-sites. It was too swampy for them.

The "Dry Hills" of Oro.

The north half of the township is very hilly. The highest altitude in the country of the Hurons is attained on these hills. In a few places here the land attains a height of more than 600 feet above Lake Simcoe, or nearly 1,400 feet above sea level. What are known as the "dry lots" or " dry hills" of Oro occupy the northwesterly quarter of the township. They are called "dry" because the settlers among them have to use cistern water all the year round. These people have often made attempts to get water by excavating deep wells, but mostly without success. Standing out by itself, an island as it were, this tract of high ground gives to anyone an exceptionally good point of view on a clear day. From the crests of the hills one can see a great panorama ; landscapes in the adjoining counties present themselves in every direction. And in the clearest weather, by looking in a northwesterly direction the Indian peninsula beyond Owen Sound may be made out; to the south, across Lake Simcoe, the Oak Ridges of York County are distinctly visible ; to the northeast lies the granitic and Laurentian area of Muskoka—a blue stretch of abraded and uniform country looking like a distant sea.

There are two or three conspicuous rifts or valleys across these hills at high levels. The highest one of them is traversed by a very high abandoned shoreline, which is about 410 feet above the "Algonquin" (this high shoreline is not traced on my map), and which runs from the deep glen at the Ellsmere site (No. 6). These valleys are dry and secluded, and evidently had their due effect upon the occupation of the intervening hills by the Hurons, for in this part of Oro the valleys and ridges run in a northwesterly direction, and the village sites are in lines which run in the same direction.

This hilly tract does not contain any springs or streams; the other parts of the township are all better supplied with streams than these dry hills. The drainage from their northern edge goes toward Georgian Bay. In other places, abandoned shorelines are

water-bearing, i.e., springs issue along them; but in these hills the high shorelines become less water-bearing the higher one rises up their flanks. And near their summits they furnish no springs, but are completely dry. These summits were the earliest "upheavals," and they have been longest exposed as dry land. They are of equal age with the highest parts of the Oak Ridges in York County.

The soil is usually a compact sand of a fertile, though dry, kind. Beds of gravel occur here and there. All the surface deposits were evidently laid down under water—the sport of currents. On the sandy loam of these hills, the woods were quite open beneath, thus furnishing more convenient passage for the aborigines in every direction than the lower swampy ground.

There is some wild land in the north half of the township, which is known as "Upper Oro," and the primeval woods cover the land in many places. But what land has been cleared has yielded considerable evidence of Huron occupation. The timber on these steep, wooded hills includes red oak, sugar maple, beech, grey elm and white pine. These are the prevailing kinds—a flora quite different from that of the swamps.

The preference of the Hurons for such high ground has been noted in my previous reports on Tay and Medonte. Hurons probably selected sandy, upland soil for corn-growing, the cornpatch being always a feature of the Huron village. According to the view expressed to me by a Negro settler in these hills, the Hurons planted their corn on the high hills because "the nearer the sun they could get, the better the corn would grow." Perhaps this philosophy of the sun and his effect upon their crops, amusing though it may be to us, has a morsel of truth. What did the Huron know about astronomical distances? To him the sun was a hot ball, a mile or two away, perhaps less: and the advantage gained by 500 feet of altitude would be, in his humble opinion, a very great advantage indeed. The business relations of the sun with the crops of the aborigines have a considerable part in their mythology.

Features of the Modern Topography.

In the Old Survey, i.e., Concessions One and Two, the lots are numbered from south to north; but in the New Survey they are numbered from the northern boundary of the township down to Lake Simcoe. In other respects, Oro is surveyed like Tay and Medonte, except that a gore, caused by a bend in the Penetanguishene Road or western boundary, is inserted at the lake between Concessions Two and Three. This gore is divided into Ranges One and Two.

The usage of the settlers in Oro in the naming of the Concession lines is not uniform—some (a majority) counting the line after, others counting it before, the concession itself. The sideroads are called "crossroads"; in earlier years the sideroads at lots ten and fifteen and the Ridge Road, were known respectively as the Upper, Middle and Lower Crossroads, and they are still sometimes designated in this way.

The Raised Shorelines and Their Archaeological Significance.

Here, as in the other townships, one of the most prominent physical features is the old shoreline markings. Their great height above present water levels suggests what a vast period of time has elapsed since the waters washed the highest parts of the hills. But there are evidences everywhere that they have done so at some remote time. The plan of the accompanying map is identical with that of the other township maps that I have lately issued. Four of the most important shorelines are marked, so as to give the altitudes of the different parts of the township. The "Algonquin" shoreline is taken as the base-line, and the other three shorelines are designated by their altitude above this one, viz., 110 feet, 230 feet, 310 feet, as it is the most important. The strong shoreline at 310 feet above the "Algonquin" is the highest one I have marked on the map, although there

Example of an Ice-Reef. (See Report for 1896, p. 70.)

are markings still higher than this. Some of these raised shorelines made numerous small islands, all of which it is impossible to mark down on the map, but the main portions of them are shown. The 110-foot shoreline saw climatical conditions of a kind widely different from what we now have. At this shoreline and also those at 70 feet and 40 feet (the two last not being mapped), ice furrows or ice-reefs become so numerous that a subarctic climate is distinctly shown. In the valley of the Willow or Crownhill Creek, and onward throughout the Central Basin of the township, referred to in the opening sentence of this introduction, there are many of these ice furrows of a serpent-like

form. Their most remarkable feature is that they occur at uniform altitudes everywhere—always in the vicinity of the three shorelines just mentioned, and more especially in what were sheltered bays at the time of their formation. The material of which they are composed is usually modified boulder clay A few years ago the writer took part in the examination of similar clay ridges or reefs in Innisfil, which township is separated from Oro by Kempenfeldt Bay. The object of the investigation was to ascertain whether they were artificial. In structure, which in their case was mainly a sedimentary clay, the material was much mixed and thus they resembled artificial work. But they lacked a line of humus along the bottom. The conclusion then reached was that they had a natural origin, but that on account of the frequency of Indian remains near them some attention had been given to them by the aborigines, who had also been struck by the curious phenomena. (See Archaeological Report for 1896.) They were evidently caused by thick ice shoving up reefs on the beach. Numerically, although they are to be found in all the protected bays of the zone of altitude from 40 feet up to 110 feet above the "Algonquin," still they reach a maximum at the 70-foot shoreline. The conjectural attention of the aborigines to these ice-reefs, which can at this day be little more than a matter of speculation, is not the only phase of the subject that needs to be mentioned. One often hears people describe them as "Indian mounds" or "fortifications," or as "Indian embankments" and even as "Indian race-courses." This is, of course, an error. Similar reefs or ridges also occur in other localities, but always at an altitude corresponding with that above mentioned. Some in Michigan have been described by F. B Taylor in an article on the surface geology of that State. (See Bull, Geol. Soc. Am., Vol. 8, 1896, p. 44.) In Michigan as well as here, some people claim to recognize in these remarkable ridges the work of prehistoric man. And on account of the wide range of this popular fallacy it is worth our while not to dismiss them without full consideration. In Ohio and other adjoining States archaeologists are becoming more careful than they were a few years ago in distinguishing the work of ice on former lake shores from actual earthworks and mounds.

The Village Sites.

These are chiefly found in the north half or Upper Oro. They are not so distinctly divisible into natural groups as we found in Medonte There is, however, a difference in kind between east and west villages in Upper Oro. The line of demarcation that divides the northwesterly group of villages from the northeasterly is a physical boundary—a rift across the hills. In the one case (the west) they have no iron relics except in two instances on the Neutral trail; in the other case (the east) they have a moderate supply of European relics, with swords in three or four instances at the southeast. Again, the west are seldom at shorelines that are now water-bearing, but the east are usually at such shorelines and as a rule the latter villages were larger and more permanent.

The west group were probably early villages of those "nations" found in the townships farther north during the historic period.

Some of the smaller sites in the Dry Hills might have been those of temporary villages established for convenience in corn-planting or corn-gathering at particular seasons, or for stopping-places on the trails, or as winter quarters. They are often distant from any water-supply, and they do not suggest permanence, unless the springs were more numerous in Huron days than now, which is quite doubtful.

Throughout the township the village-sites exhibit marks of having had a sedentary and established Huron population. The Hurons, especially those in the northwest group, like those in the previously examined townships, show considerable development in agriculture (corn-growing, etc.); they had evidently made no little advance in this art.

Nearly everywhere ash beds with pieces of pottery and other fragmentary articles, are all that remain to mark the situations and extent of many populous and permanent villages. In some places the sandy soil might have absorbed even the ashes and left few traces of occupation.

Around Bass Lake, a nice sheet of water in the northeast corner, the sites are very numerous. This might have been expected from our results at similar small inland lakes in the townships formerly examined. From the numbers of Hurons camped around this lake, the Jesuits would doubtless become quite familiar with it. And it is therefore probable that it is the lake marked on Ducreux's map, which has been confused with Lake Couchiching.

In some cases the encampment covers a few acres of elevated ground surrounded according to the common plan by steep acclivities or sometimes by ravines on about three sides. And in addition to the natural defences of such a position, we may readily infer that the whole village was surrounded by a wooden palisade. Villages which thus appear to have had a stockade are Nos. 2, 19, 26, 38, 48, 52, 57 and 62. From the apparent absence of palisading in the northwest group of villages it seems probable that they belonged to the period before the wars of the Hurons with the Iroquois.

My list of 69 sites is the result of a promiscuous survey, carried on as opportunity permitted for some years past, and perhaps the list does not include one-half of what sites will ultimately be recorded for this township. But what I give are representative sites, and are numerous enough to show the extent of Huron occupation, the geographical distribution of the sites and the natural laws that governed this distribution, and to establish the courses of the chief trails. The important sites, which are, of course, the ones that are best known to the settlers and which will be the first to reach the ear of an investigator, will probably be found in this list. It may be regarded as a collection of first-hand information, reported and revised by the writer, and will, at least, make an opening in the field for the correct elaboration of the whole story of the Hurons. The descriptions contain the

names of as many successive occupants of a farm as possible, since when the name of the finder of a relic is known, or the name of the man on whose farm it was found, it becomes easier to assign it to a definite locality, and there is no work so necessary as the definite location of the multitudes of relics that are exhibited here and there without the slightest clue to the place where each was found.

In the historic period of the Hurons—the period to which our attention is chiefly directed—the inhabitants were too numerous to get subsistence only by hunting and fishing. And an extensive cultivation of corn, etc., had to be adopted, although the Hurons were an agricultural people from the very earliest period. Carbonized corn grains are often found on the sites, and patches of corn-hills occur in the vicinity of many centres of population.

In addition to one's own observations, farmers and their workmen are very useful in giving testimony of features observed by them ; in fact, their evidence is indispensable in archaeological work, which in its nature differs from geology and many other sciences depending upon direct observation. But on the other hand, an archaeologist is at the mercy of their fancies and exaggerations, seldom consciously made. I have kept this before me, and have given no statements that are not well attested. But I have seldom given my authorities, as this would have increased the size of the report with information of minor importance.

The appearance of European metal implements on a site is a feature of great assistance in clearing up the question of the period to which the village belonged. If we find this character common to some sites and not to others, we are safe in concluding that the former were inhabited after the arrival of the French traders. In this, as in other matters, negative evidence has, of course, little value, since the reported absence of such relics from a site can only be taken provisionally. And, besides, there is the chance (always a slim one) of a European relic being lost on top of an earlier and pre-French site. But in the aggregate, these chances lose their effect, and from the total figures we learn a useful lesson of the actual state of occupation. Scarcely any iron relics have been found in Oro west of the seventh concession. On the other hand, nearly all the sites along the Lake Simcoe front have yielded such relics; some of these were evidently recent, i.e., they belonged to times subsequent to the Huron days, and the remainder were in all probability used as landing-places by the Hurons and early white traders. In Medonte we found that 73 per cent. of the village-sites yielded French relics, but in Oro this falls to 32 per cent., there being 22 village-sites out of 69 where such relics have been reported. And these 22 have yielded them in minor quantities in comparison with sites in the northern townships; in several cases, too, included in the 22, the sites are evidently post-Huron; by making allowance for this, the difference between Oro sites and Tay sites, for example, would become still wider. These figures are derived from promiscuous inquiry, and on further investigation may be slightly changed; but the difference shown in the aggregate is too great to be changed much, or be proved to be an accidental or chance result. Thus in our

southward journey through the townships of the Hurons, it is in Oro that we first actually reach the prehistoric sites. In a separate article on "French relics" I have shown, from a comparison of the frequency of these relics in the various townships, that the Hurons had lived in the southerly townships before the French came, and had been driven into the northerly townships at the dawn of the French or historic period. This conclusion, derived from purely archaeological considerations, agrees with the independent evidence furnished by the chronicles of the Jesuits, who narrate the effects of the war between Iroquois and Hurons in driving the latter farther north.

Burials.

The most easterly sites in Oro, such as Coleman's (No. 41), or Morrison's (No. 57), have hitherto yielded no bonepits. Some burial pits have been found as far east as Orillia town, but they are not so common at the east side of the county as in the north and west. This absence of communal burial pits in the eastern sites resembles the results obtained by Geo. E. Laidlaw in the Balsam Lake district, farther east, where he found that the burials are almost entirely in single graves. Single burials occur at Nos. 1, 3, 6, 22, 30, 31, 36, 38, 41, 47, 53, 57, and 65. There are seven bonepits, viz., at Nos. 16, 24, 26 (2), 29 (2), and 44.

Cahiague and St. Jean Baptiste.

Like other historic Huron villages, Cahiague is doubtless represented by a cluster of sites, rather than by a single one, for herein lies a feature of Huron life, and indeed of aboriginal life generally, which has to be kept in mind. It had doubtless been removed to a different place, probably three or four times in succession, from Champlain's visit in 1615 till 1647, when its successor was abandoned. But the inhabitants were practically the same people, or their descendants, all the time. The passage in the Relation for 1640 (chap. 9), almost identifies the Cahiague of Champlain with the later St. Jean Baptiste of the Jesuit missionaries. Lalemant there informs us that the Arendarronons had a distinct and favorable recollection of the great traveller. The identification is not quite complete, although most writers identify the two. The village of the earliest, or Champlain, period, was, in my opinion, the Buchanan site (No. 38), where extensive remains have been found near a small lake (Bass Lake), and which otherwise fulfils the conditions. In the Burrows' Re-issue of the Jesuit Relations, vol. 20, p. 305, I identified Bass Lake with the small lake on Ducreux's map, which may have been confused with Lake Couchiching. The small lake mentioned in Champlain's narrative as lying near Cahiague also becomes identical with Bass Lake, The late Joseph Wallace, of Orillia, whom I regarded as the best authority on this question, endorsed my view of the identity of the lakes.

As with other Huron towns mentioned in the early writers, the vaguest surmises have been made as to the position of Cahiague.

Most writers have assigned it to the shore of Lake Couchiching, several miles northeast of the town of Orillia. A little more attention to distances, and a better acquaintance with the nature of the country along the shores of Lake Couchiching, would perhaps help to eradicate their error.

Rev. Father Martin (Life of Jogues, Appendix A) identifies Cahiague with the Contarea mentioned by Brebeuf as lying on the frontier of the Hurons. Cahiague contained, according to Champlain, 260 cabins, which Parkman (Pioneers of France) thinks were small, because if they had been the ordinary Huron cabin the population would have been enormous. They were probably single lodges, with a family in each lodge.

In the site on the Buchanan homestead (No. 38) we find such evidences of size and character as Champlain's description of Cahiague would lead us to look for. Yet the moderate quantity of European relics found at this site, and others south of Bass Lake, leads me to think that it was abandoned at an early part of the historic period. North of Bass Lake, European relics are more abundant,—viz., in Medonte and North Orillia. This goes to show that the north was occupied down to a later date than southward of Bass Lake. Ragueneau (Huron Relation, 1648, chap. 4) says the Arendarronons, who were the most exposed of the Huron "Nations," were so harassed by the raiding Iroquois that they quitted their territory in 1647, and withdrew to the more populous Huron towns. This migration had doubtless been in progress for some time.

The best evidence, therefore, seems to point to the Buchanan site, and what would seem to prove it is: (1) Ducreux's map places St. Jean Baptiste southwest of what I believe was intended, though perhaps confusedly, for Bass Lake. This map gives the positions of the missions about 1640, and Cahiague, which may be regarded as the predecessor of St. Jean Baptiste, would have a place in the same neighborhood. (2) Champlain's Itinerary agrees with this, for he distinctly mentions the vicinity of a small lake. (3) The formation of the ground in South Orillia, i.e. the formation and courses of the ridges, indicates that a trail passed from the south side of Bass Lake to Lake Couchiching, and then to the Narrows, which was the course Champlain took after visiting Cahiague. It is essential to collect further data, and understand all the facts, before we can finally determine the positions of Cahiague and St. Jean Baptiste at all the different parts of the historic period.

For various reasons, I am inclined to regard the Arendarronons, or Rock "Nation," whose capital was St. Jean Baptiste, as Huronized Algonkins, and not Hurons in much else than language. In race they were closely related to the Algonkins, and, for that matter, so were all the Huron tribes. Their religion, myths, etc., so far as they have been recorded by contemporary writers, are chiefly Algonkin. Scarcely any of their myths and religious practices resemble those of the Iroquois, who were more distinctively national or representative of the Huron-Iroquois race than the

Hurons, if we can so name the race, the Iroquois having corresponded closely with the Sioux races of the Plains.

Trails.

No feature of the Huron occupation of North Simcoe is more important than their system of forest trails. The word "trail," as used here, means a path (more or less unbeaten) made through the high, open woods, and used by the Indians in going from one village to another. These followed the higher parts of the ridges, where the trees had lofty branches, and the woods were easily passed through. Perhaps "blazes" were sometimes used to mark trees along these trails, as it was a common practice among Indians to "blaze" trees, but it is very doubtful whether any general system of marking them was ever adopted, as the Indians had good instinct in the woods. Everyone knew the topography of his own district,—the slopes and courses of the ridges, the direction of the streams, the belts of hardwoods and evergreens, and other features. The trails of the Hurons were often used down to present times, as I have mentioned in former reports. As in Medonte and the other townships, the trails of Oro were mostly diagonal to the modern roads. This is a result of the physical features; the ranges of hills, the valleys, and the streams run this way. There were no canoe portages in Oro; all were forest or overland trails. From the important villages in the north half of the township, there were at least two trails down to Lake Simcoe.

The Main Trail, or Hawkestone Trail.

The more important one of the two trails just mentioned began at the outlet of Hawkestone Creek, and followed up the west side of the stream for a considerable distance, not immediately beside the stream, but along the ridges a short way from it. The Indians used it from the earliest times, and it was also a deer path; then the early settlers used it, about 1832 and later, on their way to Upper Oro, from Hawkestone, where there was a landing-place for settlement purposes. Yet I am informed that it was never widened into a waggon road, but was only a path, although in some places it was wide enough for an ox-team. I have not determined where it crosses Hawkestone Creek, but in the neighborhood of Mitchell Square it reappears along the east side of the creek, or at least I suppose it to be the same trail. It is probably the continuation of the Main Trail from Medonte toward Lake Simcoe, which we found crossing out of Medonte into Oro, in the sixth concession. At any rate, I have called it the "Main Trail," as its position would suggest this name [See also Site No. 29.]

We have thus found the Main Trail passing through Oro, Medonte, and Tiny Townships, to Cedar Point, on the northwest shore of the latter township. It runs in one general direction all the way for more than thirty miles, following the spine of the Huron country. Along its course over the chain of hills we have found many of the important towns or villages of the Hurons. There can be little doubt that it was much used in Huron days.

A trail evidently passed along the northern flank of the high ridge north of Rugby. Down to the present day the Rama Ojibways frequent the parts near where this trail passed, for the purpose of picking ginseng. This was the branch of the Main Trail to Bass Lake and the Narrows.

Trail to the Neutrals.

While investigating the Huron occupation of Oro, I had constantly before me the probability that the trail leading to the Neutrals might have passed through this township. So I gave some time and attention to making enquiries in the west side of the township for evidence of its course if it existed there. The overland, or forest trail, by which Brebeuf and Chaumonot went in 1640 on their famous journey to the Neutrals, necessarily passed around the head of Kempenfeldt Bay. But its course from this Bay northward for some distance, is not quite so evident. After making enquiries for the clearing up of this question, I have concluded that it passed through Vespra, west of the Little Lake in that township. From the increased number of remains in that locality, when compared with those in the west of Oro, and from the nature of the ground, it is evident the Vespra route was the one mainly used. It did not pass through Oro, except at the northwest corner of the township, where two sites (Nos. 1 and 2) indicate its course.

A trail went from Shanty Bay toward Gilchrist P.O., near site No. 21, and at the west half of lot 17, concession 4, it united with another branch from Crownhill. The latter came from the Penetanguishene Road, at lot 12, and crossed the Crownhill swamp at a narrow part (where a Trespass crossroad through lot 18, concession 3, still marks its course), before uniting with the former. The early Highland Scotch settlers in the northeast of Oro used these trails, or both branches of the one, as the Ridge Road was not open eastward much beyond Shanty Bay in the early days of settlement. This Gilchrist trail might have been used a little by the Hurons, but it evidently led to the Arendarronons in the east, and the swamps were too extensive to be regularly crossed going by this trail toward the northwest corner. It was used within the memory of living persons, by Indians travelling overland from Barrie to Orillia.

It is probable the Penetanguishene Road was not an Indian trail, although sites occur along this early colonization road, and numerous streams take rise near it, where eligible spots for villages may be found. The trail marked on some old maps, and agreeing with this Road in a general kind of way, is doubtless the one to the Neutrals. But it should be remembered that any agreement in the courses of the two can be only accidental, because the Penetanguishene Road was surveyed in 1811, and opened in 1814, as the shortest and straightest route between Kempenfeldt and the head of Penetanguishene Bay. While, on the other hand, the trails of the aborigines take us back to nature itself, before the white man, with his straight roads, came upon the scene.

The Ridge Road.

This is the main highway from Barrie to Orillia, and was opened as a public road along the "Algonquin" lake ridge, in 1848, eastward from Shanty Bay, the westerly part having been opened before. It appears to have been an Indian trail, originally, as there are a few sites along the ridge, and no swamps to cut off the travelling. The ridge is almost continuous for a long way, and there are no streams flowing into Kempenfeldt Bay from the north, but a few small ones begin to make their appearance as soon as the lake itself is reached, near Oro Station. Sir George Head ("Forest Scenes") mentions the ridge running into Oro from the head of Kempenfeldt Bay, which he found passable as a trail in 1815. But I have not met with any other tradition of it. Nearly all the sites found along the top of this ridge yielded European relics.

Other Transverse Trails.

There are evidences of some local trails, crossing the "Dry Hills" from southeast to northwest, but I have not marked them upon the map, as I have not met with any tradition of their existence in modern times, and their terminations, if marked, would be conjectural.

CATALOGUE OF VILLAGE SITES.

The Northwest Group of Sites.

1. On the south half of lot 39, concession 1, George McLean. On sandy soil, near a spring (now nearly dry), and a swale. Remains have been found on a patch of five acres or more, but they were most numerous at the spring, which is the source of a stream called Bishop's Creek, or sometimes Lang's Creek (so-called after early settlers). The original wood was chiefly maple. There were four or five artificial holes at the site, perhaps empty single graves or caches. Among the relics found were two or three iron tomahawks, besides animal bones, etc. Some of the pipes had the Huron trumpet-mouth pattern. Several human bones (thigh bones, lower jaws, etc.), were ploughed up near the surface, in scattered positions, as if no care had been taken of their dead. [It may be recalled in this connection that captives or prisoners were usually eaten, and their bones received no regular burial.] A man who lived here many years ago, when describing these human bones to me, spoke of them as the skeletons of two or three persons. Relics of various kinds, indicating camps, have been found on the adjoining farm southward (s. half lot 38, Henry Minty's). Another stream rises here, and it may be found that these camps belonged to a village quite distinct from that on Mr. McLean's.

2. On lot 35, concession 1. The Penetanguishene Road passes through this site; and as it is thus readily seen, and is often talked about, the place has received the name of "Pottery Hill." On account of its situation on a public road, the site on "Pottery Hill" is well-known to every person in the locality, and it has enjoyed

greater distinction than many another site which is really more important. Various persons have occupied the land on the Oro side; among these have been Henry Cannon, Paul Sheffield, and Ephraim Salsbury. The site extends into the farm of John Marshall, lot 35, concession 1, Vespra Township. The whole site occupies a hill, surrounded by ravines, and was, perhaps, palisaded. Three or four acres is the extent of land over which ashbeds and relics have been found. As is usual at nearly every other village site, a spring issues near at hand, and from it, no doubt, the Indians of the village got their supply of fresh water. It is on the land of Mr. Marshall, and is the source of a small stream that runs to Willow Creek, in Vespra. One man found here a coin, or ornament, the only European article that has been reported to me as having been found here. Another observer, whom I interviewed, remarked that he saw corncobs (carbonized) dug out of the refuse heaps; this goes to prove that the site was of Huron origin. One early observer of this site was R. W. Douglas of Toronto, who obtained pipes and other relics from this place in 1878. Large quantities of pottery fragments were to be seen at that date, and he considered it had been used as a pottery. The name "Pottery Hill" perhaps also implies this view. But this is a common error in regard to the deposits of refuse on early sites; such heaps are always thickly mixed with pottery fragments. In the collection at Toronto University Museum, the description of No. 17 is:—"3 clay pipes (imperfect) from a mound on Penetanguishene Road, near Hillsdale—R. W. Douglas, donor." (The mound is, of course, a refuse heap, and not a burial mound, in the special sense of the word.) There is no evidence at hand that should lead us to assign this site to a late part of the historic period of the Hurons.

3. On lot 40, concession 2, Joseph Jennett has found a few Indian remains, including a stone axe, or "skinner," a human skull in one place and a thigh bone in another. He has not found ashbeds; the place is rather too dry for permanent camps, but might have been part of a cemetery in connection with an adjacent village site in Medonte, just over the townline. (Probably site No. 49 in our catalogue of that township.)

4. On the west half of lot 3, concession 3. George Sargeant. Mr. Sargeant, who has lived here for thirty-six years, has found pipes and pottery fragments on the hill northeast of his house, but has observed no ashbeds. There is a spring about a quarter of a mile westward, but the land at the site itself is very high and dry, being about 600 feet above Lake Simcoe.

5. On the east half of lot 3, concession 3 John Shaughnessy. This site extends into the east half of lot 2 (Jas. Fraser's). Several clay pipe bowls of the pattern which I have provisionally named the Belt pattern, have been found here. (See Medonte Report, p. 77.) No iron relics are found. The high, dry land hereabout yields good Indian corn at the present day. In a deep glen northward, good springs are found.

6. On the west half of lot 1, concession 4. The usual relics, indicating camps, have been found on the portions of this farm occupied by John Elsmere and Joseph Elsmere, sr., respectively. And a little way up the high hill westward, on a flat patch of ground on the east half of lot 1, concession 3, workmen unearthed an Indian's skull near the present townline. Strong springs issue near where the camps were placed.

7. On lot 2, concession 4. Geo. Kissick. Here, as at so many other Huron sites, a few single graves were found on or near the site of the village. No iron relics have been reported.

8. On the east half of lot 1, concession 5, J. J. McNally, owner (absentee). Geo. Cook became tenant last spring, and has found pottery fragments, etc., southeast of the barn, on a plateau, near deep ravines. There are no surface springs anywhere, and the land is very high, that immediately to the west of the place being the highest part of the Dry Hills. When Mr. McNally himself occupied the farm, some relics were found.

9. On the west half of lot 4, concession 4. George Henry Eddy formerly occupied this farm, and found some remains of the usual kinds. The land is now under sod, and nobody lives on it. It is owned by James Hewitt, of Edgar.

10. On the east half of lot 33, concession 2. Joseph Bertram. The occupants have found pottery and pipe fragments, stone "skinners," flints, etc., but the site is apparently small.

11. On the east half of lot 6, concession 3. Alexander Eddy. At the small grove of second-growth pines south of his dwelling, Mr. Eddy has found pipes, pottery fragments, stone axes, etc., but no iron relics were observed by him.

12. On the northwest quarter of lot 7, concession 4. Wm. Weeks. Mr. Weeks has found a few remains of the usual kinds.

13. On the east half of lot 8, concession 4. Joseph Cavanagh. His father, Patrick Cavanagh, settled here many years ago, and found the usual pipe stems, pottery fragments, stone axes, etc. (but no iron relics), on a patch of elevated ground north-west of the farm buildings. There are no surface springs now, and no water is obtainable by digging, as they once dug a well 120 feet deep and got none.

14. On the west half of lot 29, concession 2. Jas. Milbee. The Milbee homestead. When the elder Milbee lived here, a number of years ago, they found ashbeds, pottery fragments, stone axes, etc. The site is on the ridge eastward; it is only three or four rods square. No iron relics have been reported. The Hurons appear to have followed the ridge here, which runs toward the north-west.

15. On part of lot 27, concession 2. Robert Milbee. The remains were found near the east end of this farm, on the high ground. They were found more especially when Mr. Gardiner owned this farm. The woods covering the ridge here contain a large proportion of beech trees. It is but a short distance from the place where the remains were found to the bonepit mentioned

under the next number, and there might have been some connection between the two.

16. On the northwest quarter of lot 9, concession 3. John Harrison. Many years ago Mr. Harrison's son found a bonepit here. He had been sent to dig a grave for a small dog that had died, and on digging into a hollow a few yards south of their dwelling-house, he found the deposit of human bones. According to Mr. Harrison's statements, the pit was about 14 feet in diameter. There was a sinkage of the ground about two feet below the surrounding level; then, the deposit of bones was about two feet thick, thus making the bottom of the pit about four feet from the level of the ground. Mr. Harrison took out about 20 entire skulls from the part he dug. About the year 1876, or perhaps earlier, Rev. S. N. Jackson, M.D., and Rev. E. D. Silcox, Congregational ministers, then living in the neighborhood, made some examination of the pit. It was estimated that it had contained 100 skeletons altogether, at the lowest estimate, some of the bones being of large proportions. No relics of any kind are reported as having been found in it, but Mr. Harrison found pipes, etc., when he first cleared the land near the pit. He observed no ashbeds; hence this might have been the cemetery of the next-named site, No. 17, which was upwards of half a mile distant, but quite large.

17. On lot 10, concession 3. John Thompson. Formerly occupied by T. M. Thomas. This site was large, remains having been found over an extent of nine or ten acres. Artificial holes in the ground occurred at it, and there were four or five refuse heaps. Bone needles, stone axes, grains of corn (carbonized) in considerable quantities, and other relics have been found, but no iron relics have been reported. The village does not seem to have had much attempt at palisading. It is the best known site in this neighborhood, perhaps because some of the ashbeds with pottery fragments can be seen along the roadside, where passers can readily observe them. The bed of a stream (now dry) crosses the road here. It seems to have been the chief village in this vicinity, and the last-mentioned bone-pit, No. 16, was probably its cemetery.

18. On the west half of lot 17, concession 1. Chas. Partridge, sr. The site covers an acre, more or less, on top of a hill. The relics found at it include fragments of clamshells, pottery, clay and stone pipes, flints, etc. These were found many years ago, when the patch was first cleared, but ploughing has almost obliterated the evidences of occupation. No iron relics have been observed. The site now has no springs or other water supply closer to it than a swamp at some little distance. At the foot of the hill on which the village stood there are ridges that might be taken for fortifications. But it is probable they are ice-reefs, like others to be seen at many places along the valley of this Crownhill creek.

19. On the northeast quarter of lot 15, concession 3. John Elliott. Remains of camps were found on a peak of raised ground

between two streams which meet. No iron relics have been reported.

20. On the west end of lot 11, concession 1. On the southwest corner of this farm, at a house now occupied by Daniel O'Rourke, many years ago numerous pottery fragments and stone axes or chisels were found. Some people supposed this was where pottery had been made, as the fragments were very abundant. But this is a common error regarding refuse heaps at sites. The village or camps stood on the edge of the Crownhill swamp.

21. On the east half of lot 20, concession 3. Geo. Caldwell, sr. Mr. Caldwell found some pieces of Indian pipes, etc., on a ridge of light soil in one of his fields when it was first cleared. The remains were not extensive, but are sufficient to indicate former occupation, as also the course of a trail which passed through his farm going to Shanty Bay. (See under "Trails" in the Introduction.)

22. At Kempenfeldt Point, in the brickyard. Flint spearheads, pipes, etc., were found here by George Johnson several years ago. These were found a few inches below the surface, when removing clay to make bricks. Also some stone chisels or axes, pipe bowls, an iron knife, and some human skeletons, three or four crowded into holes, and a child's in a board coffin. The last named was evidently recent. They were found by Wm. Crowe, who lives near the place and often worked in the brickyard. This Point was a landing-place for Indians down to recent years, and the Hurons might have used it in their day, although pottery fragments have not been reported. Ojibway Indians some years ago also camped a few hundred yards northeast of the Point. I will quote from a letter written to me in 1897 by Dr. C. N. Laurie, of Coboconk, Ont., who spent his boyhood near the place:—"Indians used to camp at the foot of the hills east of Kempenfeldt Hill and Point, on the road leading to Shanty Bay. There used to be many small pine trees there, and perhaps they are there yet. My grandfather, the late Thomas Drury, said that the Indians camped there every summer as long as he could remember, and he first came to the country in 1819. The place was fenced in about 15 years ago (in 1882), after which the Indians ceased to camp there."

23. On the west half of lot 27, concession 4. Some time before 1887, James Ross, who was then the occupant of this farm, found in his orchard an iron tomahawk, two flint-lock pistols, but no pottery fragments. A paragraph in the Barrie "Examiner," Feb. 13, 1890, adds that a flint-lock gun and a sword were also found. South of this place there is a cove on the shore of Kempenfeldt Bay, where there is a good landing-place. The spot is on the brow of the ridge, overlooking the "Algonquin" shoreline.

THE EASTERLY GROUP OF SITES.

24. On lot 3, concession 7. Ebenezer Walker. Remains were found west of the farm buildings on the east half, on a flat, ele-

vated piece of ground. Among the relics found here was a stone mortar. A bonepit was found about 60 rods distant to the west, on the southwest quarter of lot 3. It was discovered and first opened about the year 1857 by William Walker, of Coulson, who gave me particulars of it. He appears to have been the first person to make an opening in the pit, but he did not dig to the bottom. Others did so at later times. A large pine grew over the pit. Mr. Walker, in the course of his digging, found no brass kettles in it or other articles of European manufacture; but another person informed me that brass kettles were subsequently found in it, though I have had no confirmation of this story and am inclined to disbelieve it. The late F. Whitelock informed me that the three bonepits of this neighborhood (i.e., this one and the two mentioned under No. 26) were excavated by persons from Orillia. The only articles, besides bones, that I have positively known to come from this pit, were a copper ring (or perhaps brass) and a pipe. The late J. M. Hunter and the writer examined it briefly in 1888, but the pit had evidently been thoroughly dug out previous to our visit. It was in porous, sandy soil. I estimated, from its dimensions, and from the various accounts of the diggers, that it originally contained about 150 skulls, or skeletons. Mr. Walker has found relics near the pit itself, and the owner of the northwest quarter of lot 3, Chas. Emms, has also found numerous remains on his land.

25. On the west half of lot 4, concession 7. Mr. Cook. The occupant's brother, George Cook (now of the e. half lot 1, con. 5), occupied this farm until April, 1902, and found many relics, chiefly broken ones, on this site, but no iron ones. It appears to have been extensive. The occupant found some iron tomahawks in this neighborhood. It is not far from the bonepit mentioned under the last site, and may have been contemporary and connected with it.

26. On the west half of lot 3, concession 8. Neil McNevin. The marks of about twenty Huron lodges, having in nearly every case three fires for each lodge, were to be seen over an area of about three acres (not more), when I first visited the site on Aug. 27, 1887, and June 11, 1889. The Huron lodge form was more discernable on the ground here than at any other place seen in my archaeological visits. The village was probably palisaded, as it was situated on rising ground, almost surrounded by ravines. The south edge of the site extends over the boundary of this farm into lot 4. In the ravine along the west side of the site, there is a streamlet, which flows to the Coldwater River. It was evidently a village of considerable importance. Jas. Davis, now of Orillia Township, cultivated the west half of lot 4 for a term of years, and the part of the site on his land was used by the Davis family as a garden on account of the great richness of the soil. To Mr. Davis and family I am indebted for aid in my researches at this site, as well as at other places. They readily gave me several relics which they found, and these were sent by me to the Provincial Museum. The public spirit shown by them is highly commendable.

A list of the relics (with their catalogue numbers) is here given, as they are typical of a Huron village. The preponderance of bone relics is worthy of note in connection with this purely Huron site. From Jas. Davis: A grotesquely modelled black clay pipe (6920), this fine specimen is fully described at p. 51 of the Archaeological Report for 1896; the illustration is herewith reproduced. Stone axe (16,332); clay pipes (16,336), (16,337); a toy, or miniature, clay pipe

was found by a member of the Davis family; (it is described and figured at page 45 of the Archaeological Report for 1898, bone chisel (16,920); pointed bone (16,921); arrowhead, two imperfect bone awls, beaver's tooth, blue glass bead (European), and two imperfect soapstone specimens (all 17,824). From Neil McNevin, the owner of the land, I received: Bone awl or needle (7,916); bone chisel (16,898). The only articles of European manufacture reported as having been found here were an iron tomahawk, found by Mr. McNevin, and the blue glass bead above-mentioned. The village thus obviously belonged to an early date. Black pottery ware, of which the pipe, No. 6,920, is a specimen, is not very common on Huron sites. It is said to have been produced by double burning, or kilning. After the first fire had made the clay articles intensely hot, the bright coals were raked away; and from the fresh fuel then applied the smoke stained the pottery a black color throughout its entire thickness. (See Mason's "Woman's Share in Primitive Culture," p. 106). Two bonepits of medium size were found a hundred yards or more to the southward, on lot 4. They had been thoroughly ransacked when I saw them. Having been guided to them by Jas. Davis, I estimated that each had contained somewhere from 100 to 150 skeletons. Pipes were the only relics said to have been found in them, besides bones. Some medical students, natives of this township, had obtained crania and other bones from them. Southeast of these pits there were from 50 to 100 shallow pits to be seen, in 1889. The place was then in woods, but has since been cleared. This was probably

the scaffold-patch, or place of temporary burial; or the irregularities may have been due to heaps of earth for a cornpatch.

27. On the east half of lot 4, concession 7. The land belongs to Alex. McLean, who lives about a mile distant. Wm. J. Hunter, jr., of the adjoining farm (lot 5), observed pottery fragments, etc., here, while at work on the land. I have been unable to ascertain the extent of occupation of the aborigines, but I judge the site was small and transient, as there is no surface water supply on the farm.

28. On the east half of lot 6, concession 8. Alex. Woodrow. Numerous springs rise in the sandy hills hereabout, and are sources of the Coldwater River. Remains have been found more or less frequently throughout a field of six acres. When it was first cleared several years ago, a few iron tomahawks were found, besides the usual relics of native manufacture. The occupant of lot 5, who is also Alex. Woodrow by name, has found remains on his land. The village on lot 6 might have been the village of which the next number was the burial place, the distance between them not exceeding half a mile.

"Dr. Bawtree's Burial Pit, No. 3."

29. On the east half of lot No. 7, concession 8, may be seen the best known archaeological feature in Oro, two bonepits having been found near the dwelling house many years ago. When the first of these was discovered, the farm was occupied by Malcolm McArthur. He had settled upon this farm before 1837, and had lived there more than ten years before the discovery of the pits. The farm is now occupied by the Robertson brothers. The larger pit contained :— A large number of human bones (some of which were of mammoth proportions), brass kettles (many or all of which were damaged by having a hole knocked in the bottom); a piece of fur; a braid of hair; beads, etc.. John C. Steele, Esq., of Coldwater, has a well-preserved conch shell, found by John Galbraith in this bonepit. Galbraith kept a tavern about two miles from the pit, when its fame was greatest, and he appears to have done more digging in the pit than anyone else. The shell, when found, had the end rubbed, or drilled, off, so that it could be used as a horn. The Jesuit Relations mention that these shells were in use among the Hurons as trumpets. When Mr. Steele lived in Oro,—about five miles from the pit,—his family used the shell as a dinner horn. It could be heard two miles away, and was known as "Steele's horn," though always in a dryly humorous way, because it made the neighbors feel hungry. Hence it came about that, in the nineteenth century, as well as in the seventeenth, "the horn of hunter was heard on the hills" of Oro. Mr. Steele informed me that nine brass kettles, all damaged in the way described above, were found in the pit. And I prefer to adopt nine as the number found, because other eye-witnesses have mentioned this as the true number, although exaggerated accounts have increased the

number to seventeen, and, in the case of one person, to sixty. South-east of the pits there is a sandy plain, overgrown, when I first saw the place in 1888, with second-growth pines. Here there was a curious network of apparently artificial arrangements on the ground (perhaps cornhills), which the settlers remarked when they first came to the neighborhood. On account of its peculiar appearance they called it the "Orchards," but I have been unable to understand the propriety of the name. No springs now exist on the surface anywhere near the pits or "orchards," the land being hilly and dry.

An account of one of the bonepits was written about the time of its discovery, by Edward W. Bawtree, M.D., of the Military Establishment at Penetanguishene, and appeared in the Edinburgh "New Philosophical Journal" for July, 1848. But Dr. Bawtree had no opportunity of correcting the proof of it; hence, the text which here follows is that of a corrected typewritten MS., sent by him to the Canadian Institute, Toronto, in 1894, which I am permitted to use in preference to the published texts.

Dr. Bawtree's Description.

"The third of these sepulchral pits (the first and second were in the Township of Tiny), which has been examined, is not in this immediate neighborhood. It is situated on lot 7, 8th concession of the Township of Oro, and was visited on the 4th of November last (1847). It had been opened by the proprietor of the land about a fortnight before. The land belongs to a Mr. Galbraith, an intelligent Highlander, who gave a very distinct account of the exploration of the pit. It has been cleared for several years, and no notice taken of the pit till the above time, when a new settler built a shanty nearly over it. A French Canadian, happening to come there to work at the house, immediately recognized its peculiar appearance, and told the people that if they would dig there they would certainly find plenty of bones and twenty-six kettles, a prediction which was speedily verified.

"The pit is on elevated ground, in the middle of a fine undulating and hilly country; but apparently without any particular relation in its situation to surrounding objects or places; except perhaps that it is on a short line of communication between Lakes Simcoe and Huron (now called Georgian Bay), [See 'Trails,' Introduction]; the soil is a light loam. It measures about fifteen feet in diameter; has the distinctly defined, elevated ring, but the centre less depressed than in those before examined, which may have arisen from the character of the soil or the greater bulk of its contents. On its margin grew formerly a very large pine, which was cut down at the clearing of the land. The roots of this pine had grown through the pit in every direction.

"The bones were scarcely covered with earth. They were of all sizes; Galbraith himself made a rough calculation of the number by counting the skulls from a measured space, which gave to the whole not less than fifteen hundred; this was probably an exaggerated number, though they undoubtedly amounted to several

hundreds. They were in good preservation; on some, pieces of tendon still remained, and the joints of the smaller bones were even unseparated.

"It was noticed that only a few of the skulls bore marks of violence; one, which was exposed in our presence, had a circular perforation on the top resembling a bullet-hole; and others, it had been observed, bore the appearance of having been "tomahawked.' A similar observation was made on the size of these bones as had been on those found in the other pits—that some of the lower jaws were very large and would amply encircle that of a full-sized European. The cylindrical bones, however, did not appear to be of unusual size.

"As in the first noticed pit, were found also twenty-six kettles, four of brass and the rest of copper; one conch-shell, one iron axe, a pipe, and some of the lozenge-shaped beads (wampum). The kettles in this pit were described as being arranged in the form of a cross through its centre, and in a row round the circumference. From observations made with the compass, it is probable that the points of this cross bore relation to the cardinal points; two of them faced upwards, the others were placed with their base upwards.

"The conch-shell was found under one of the kettles; they had been carefully packed with beaver-skins and bark.

"These kettles resembled exactly those before described (see Dr. Bawtree's descriptions of his first and second burial pits in Report on Tiny township), though they averaged of a smaller rim. They were in good preservation, but with this peculiarity that each had been rendered useless by blows from a tomahawk. That they had been intentionally cut into there can be no doubt, some bearing one, others three or four incisions, all of the same length and shape, and all on the bar of the kettle; they had evidently been made with an axe, and the size of the incisions seemed to correspond to the edge of one found with them, but no opportunity occurred of comparing them. Should any doubt exist as to the exact history of the pit, the fact of these kettles having been rendered unserviceable seems highly calculated to remove that doubt, as it appears to be a proceeding so very contrary to the habits and ideas of Indians in general."

[E. G. Squier, who quotes this description in his "Antiquities of the State of New York" (p.p. 100-107), makes the following note at this place: "Dr. Bawtree is mistaken in supposing this practice uncommon. The Oregon Indians invariably render useless every article deposited with their dead, so as to remove any temptation to a desecration of the grave which might otherwise exist. A similar practice prevailed among the Floridian Indians.]

"The conch-shell is smaller than those found in the Township of Tiny. It is in good preservation, though quite white, and in some parts has lost its smooth surface; a piece has been cut from it as in the last described. (See Dr. Bawtree's No. 1, Tiny.)

"A pipe was also found, which the person who explored the pit described as having been formed out of blue-stone or hard

clay, and very neatly cut in a succession of circles, the base nearly as large as a common tumbler. On one side it had a human face, the eyes of which were formed of white pearly-looking beads. This pipe was unfortunately destroyed by some drunken farmers while examining it. It was described as being remarkably handsome, and would have been more carefully preserved had the discoverer noticed its beauty at first, but in its dirty, soiled state he paid but little attention to it.

"An iron axe exactly similar also to that before mentioned, though of smaller size, was found, and a large quantity of the flat circular beads."

After describing a Huron Feast of the Dead and the formation of a burial pit, Dr. Bawtree proceeds:

"That the kettles which were found in Pit No. 3 in the Township of Oro were deposited there under some such circumstances seems most likely from the fact of their having been previously rendered unserviceable, this proving almost to a certainty that they were not placed there for any purpose suggested by their ideas of the future lot that attended their deceased friends, as a broken kettle would be even less serviceable to them in their happy hunting grounds than to those they left behind."

Sir Daniel Wilson makes a reference to this burial pit, and the preceding account of it by Dr. Bawtree, in his essay on shell articles, in the Canadian Journal, Series II., Vol. III. (1858), p. 399.

As to the exact position of the village belonging to this famous pit, I have not definitely determined it, though No. 28 is not too distant to have been the one with which it was connected.

30. On the east half of lot 2, concession 11, Thos. Jarratt, who has lived here for many years, has regularly found pottery fragments, pipes, etc., in and near the ashbeds on the high ground on this farm. Eastward, across the concession road, on the west half of lot 2, concession 12, numerous evidences of Huron occupation have also been found. The latter is the farm of the late Wm. Miller, the present owner being Donald McLean, although no person now lives on it. Isolated human skeletons have been ploughed up on this farm, on the hill adjacent to the land of Mr. Jarratt. An iron tomahawk or two have been reported, but relics of European manufacture are not numerous.

31. On the west half of lot 2, concession 13. The McKinley homestead, Donald McKinley being the present occupant. They have found pipes, stone axes, pottery fragments, etc., but no iron relics are remembered. Mr. McKinley, grandfather of the present occupant, found a human skeleton. A large sinkhole occurred on lot 1, not far from the site.

32. On the east half of lot 1, concession 13. Thos Hipwell. The site covers four or five acres beside Bass Lake. Mr. Hipwell found iron tomahawks bearing the French stamp, two round stones (large), pottery fragments, pipes (including a carved animal stone pipe, which his late father gave away). One of the camps had a pavement of burnt stones. When his father, the late John Hipwell, first settled here in 1849, black bass were very numerous

in the lake, and from this circumstance the lake got its name. Two acres of lot 1 are in the lake.

33. On the east half of lot 2, concession 14. John S. Nelson. Beside Bass Lake. Stone relics, especially stone axes, have been found in considerable numbers near the lake. An interesting stone relic, once found here, was an axe at one end and gouge at the other. The stone axe (No. 17785 in the Provincial Museum, Milne's collection) came from this site. Mr. Milne obtained an axe with a groove around it. It is worthy of note that many of the stone axes found here are very primitive in their workmanship. Although an iron knife and an iron tomahawk have been found by Mr. Nelson, it is apparent from the kinds of relics that races of aborigines lived here long before the Hurons.

34. On the west half of lot 6, concession 10. Wm. H. Crawford. There is a rift in the hills through this lot in concession 10, and a stream takes its rise near this site and follows through the glen between the hills, making its way at last to Bass Lake. The usual pottery fragments, pipes, etc., and a stone mortar, have been found here. There is a spring just a little north of Mr. Crawford's sawmill, where the Indians of this village could procure water. When I visited this place on July 11, 1902, three patches of blackened soil, mixed with pottery fragments, were visible in the garden on a hillside. Other camps and ashbeds occur near, and on the west side of the hollow in which the sawmill is placed some Indian remains have also been found.

35. On the west half of lot 6, concession 11. James Thompson. The camps were indicated by the usual pottery fragments, etc., which were found more abundantly near the edge of the swamp, through which flows the stream mentioned under the last site. Some years ago Mr. Thompson found a few iron tomahawks. In the field south of the dwelling-house, and occupying the space between the house and the crossroad, several pipes, etc., were once ploughed up.

36. On the east half of lot 6, concession 12. David Johnston. Ashbeds more than a foot deep were found here, chiefly beside the low ground of the adjoining swamp. The usual relics have been found. A human skull was unearthed beside the crossroad, and near this site. A few remains have also been found on the west half of the lot.

37. On the east half of lot 7, concession 12. Robert Johnston. Some clay pipes and other remains have been found here. There are some trenches or corrugations on the surface of the ground, supposed to be artificial. Donald Johnston of the west half of this lot (No. 7) has found a pipe and pieces of pottery on his land.

38. On the west half of lot 7, concession 13. The late Donald Buchanan, sr., was the first settler here, many years ago, and in early years began to find evidences of aboriginal occupation. His son Donald is the present occupant of the farm, and another son, Frank Buchanan, has also paid close attention to the remains of

the aborigines found here. Considerable remains of a town or village have been found, and, like the other sites hereabout, it was evidently connected with the fishery at the neighboring Bass Lake. The site has seven or eight acres altogether, on a raised plateau, which includes the present dwelling-house and farm buildings. In the garden of the original dwelling, beside a pond, there were thick deposits of ashes with relics and fragments. A few European beads and iron tomahawks have been found, but not in any great quantity. A few human bones have also been found. Dr. Bawtree of Penetanguishene made an archaeological visit here in 1848, or earlier, and obtained pipes, etc. There is a group of artificial holes (probably empty caches or empty single graves) on the higher ground southward from the site, but on the same farm. In consequence of the proximity of Bass Lake, fish bones have been found in the debris at this site in great quantities. This is an important site, and I have concluded that it represents the earlier position of the "capital" of the Rock nation of Hurons (Arendarronons), and was probably the town visited by Champlain and called Cahiague. My reasons for this view will be found in the Introduction.

39. On the east half of lot 7, concession 13. John Robertson. The ground is blackened with the camps of aborigines. The occupants have found stone axes, pipes, pottery fragments, fish bones, etc. The extent of the remains is not so great as at the last mentioned site on the west half of the same lot.

40. On the west half of lot 8, concession 14. Robert Roberts. This site is beside the road along the west side of the 14th concession, and also adjoins Mr. Coleman's land. (See next site.) Mr. Roberts has found pipes, pottery fragments, skinning stones, etc., but no iron relics, so far as he remembers. The field containing the site has seven acres, but relics are not found over all parts of it. It is situated on the north edge of the high ridge, and overlooks the valley that contains Bass Lake.

41. A site of some interest occurs on the southeast quarter of lot 7, concession 14, the owner of the land being Jas. (Michael) Coleman, and Arthur Mealing, tenant. It is near the boundary of lot 8 (the Jenkins farm), which is occupied by Donald Horne. There is a burial ground, at which single graves were numerous. The cemetery was in a valley, which had graves on both sides of it. There was no communal bonepit of any kind, so far as anyone remembers, with whom I have consulted regarding the place. The following description of it by Dr. Jas. N. Harvie of Orillia was communicated to me in a letter dated June 27th, 1889; it preserves a record of some of the more interesting features of the site: "It is on a slight elevation; soil, sandy; it is thickly studded with small trees and a few large pines, whose roots have penetrated and crossed many of the graves. My brother-in-law said it appeared as if, when the graves were made by the Indians, the space had been quite clear of trees, with the exception of a few pines, which have since grown and extended their roots very much; whilst a second forest of other trees has been since growing

up. The graves were comparatively numerous; he thought there would be somewhere about a hundred. Some years ago (probably twenty or thirty) a gentleman by the name of Donald Buchanan, sr. (see Site No. 38), dug up some of the graves and found, of course, many skulls; and it was observed that almost all (if not all) of these were gashed on the side, as if the Indian had been killed by a blow from a tomahawk on the side of the head. The wounds seemed to be almost all on the side of the head. . . . Mr. Buchanan gave one or two of the skulls to a doctor in Orillia." It is worthy of note in connection with the openings made in the skulls, that Huron Indians had a practice of making these holes in the skulls after death. This view is further strengthened in the present case by the fact that, as I am informed by Frank Buchanan, some of the thigh bones found here were also marked with tomahawks or other sharp tools. This could only have been done after death, and after the flesh had been stripped from the bones. The mortuary practices of the Hurons were quite unique in many respects; and the theory of a battle to account for singular markings on the bones will hardly explain the phenomena satisfactorily in the present case, or in many more where the theory is put forward.

42. On the highest part of the main ridge in the Dry Hills, but near the eastern end of the ridge, there is a site far away from any water supply. It is on the east half of lot 8, concession 7. Archibald McDuff. Numerous pottery fragments, pipes, stone axes, etc., have been found on Mr. McDuffs' land. Across the concession road on the farm of George Strachan, lot 8, concession 8, some pieces of rusted iron implements were once found. And on the east half of lot 7, concession 7, the farm of Andrew Brown, adjoining Mr. McDuff's, there are some peculiar holes, apparently artificial. The relics found have been numerous enough to show that this place was frequented by aborigines; and as it lies upon the line, or close to the line, of travel from the northwest toward Lake Simcoe, it may be taken as a proof of the existence of the Main Trail thither. It was evidently a halting-place for those crossing the hills.

Along the south side of the Dry Hills, some village-sites are found at the edge of the swamp that nearly divides the township into two halves. We shall begin at the west curve of the swamp, near Edgar, and follow this chain of villages to the east side of the township.

43. On the east half of lot 10, concession 5. John Rowat was an early settler on this lot, and relics were found here in his time. John Hewitt, sr., of lot 11, is the present owner. He has found numerous remains, and has given some attention to them. The site covers about an acre, and may be a part of the next one, or may have had some connection with it. Springs are numerous hereabout, and on the lower ground a short distance southward there are many ice-reefs which have been by mistake supposed by some persons to have had an Indian origin.

44. A site on the west half of lot 10, concession 6, is notable for the finding of a bonepit at it some years ago. The land was owned and occupied at the time of its discovery by John Ashfield, and his name still clings to the pit when people are describing it. The present occupant is Thos. Hutchinson. The bonepit, which has been completely covered over, was situated near the banks of a small pond, which is fed by springs. Some relics have been found over the cleared portion of this farm, but more especially near the pond. The pit seems to have been found and excavated between the years 1862 and 1868. Prior to the last named year a doctor (probably Dr. Tache) excavated it, and took away a number of perfect crania. About 90 crania in all are said to have been found. A pine tree had grown over the bones; when it turned up it exposed them. The pit it said to have contained brass kettles, but this point is not fully confirmed. Another statement, that skeletons were buried with heads toward the centre, also lacks confirmation; it is more likely they were buried pell-mell, as in almost every other Huron bonepit. Grains of Indian corn, carbonized, and pottery fragments have been observed in the adjacent ground. It is probable this site, as well as the last one, and No. 17, belonged to the period of Champlain's visit.

45. On the east end of lot 11, concession 6. John Morningstar. Mr. Morningstar, having lived here for about 35 years, has had good opportunities for observing the traces of aborigines. Immediately south of his barn he has found pottery fragments, pipe stems and bowls, clam shells (he calls them "oyster" shells, as they were thicker than ordinary clams), fish-bones, etc., but no iron relics.

46. On the east half of lot 12, concession 7. The homestead of Sergeant Donald Grant, who settled here in 1832. Robert Grant is the present occupant. The site is where the dwelling-house stands, and in the orchard. It is near the source of a feeder of Hawkestone Creek, between the foot of the range of hills and edge of the swamp. The occupants formerly found relics, but only a few in late years. No iron relics are remembered. Modern Indians camped near at hand as late as 1885.

47. On the west half of lot 11, concession 8. Alex. McEachern. The owner has found pottery fragments, pipes, clam shells, etc., in considerable quantities on a low hill beside a supply of spring water. The remains of camp fires were formerly distinct, but ploughing has nearly obliterated them. No iron relics have been found. The Orillia "Packet" of Sept. 6th, 1900, has this brief notice of this important site: "Indian relics—pipes, tomahawks, spear and arrow heads, skinning stones, etc.—are still occasionally found in this part of the country. On lot 11, concession 8, of Oro, there has evidently been an Indian village, as large quantities of these relics were formerly found there, with traces of numerous camp fires. Some time ago Mr. A. McEachern, while ploughing, discovered two Indian skeletons just below the surface. They had evidently been doubled up and buried with little or no care. On finding them, a hole was dug, and the remains buried deeper."

48. On lot 12, concession 8. Wm. Clark. There is a raised patch of land projecting into the swamp from the north, and on this patch some evidences of aboriginal occupation were found--skinners, a pipe, etc., but no iron relics were remembered by Mr. Clark.

49. On the east half of lot 10, concession 9. Peter Gillespie. Some relics and a few other evidences of camps have been found here and on the opposite farm, but there is no convenient supply of spring water.

50. On the east half of lot 14, concession 9. William Rouse, jr. There was an old road, used by the early settlers, through the west part of this farm, and which was evidently the main Indian trail, converted to the white man's use. A few evidences of Indian camps were found—pipes, pottery fragments, etc. And there are reef formations on the farm which some persons suppose to be artificial. But as the 110 foot shore line comes into the farm, both on its east and west sides, and makes ice-reefs, the formations were doubtless produced in this way. (See Introduction.)

51. On the west half of lot 13, concession 10. James Horne. This farm has had several successive owners and occupants. It originally belonged to Neil Galbraith, then to Francis Baker, lumberman. During the ownership of the latter, Wm. McMullen and John Stonehouse were occupants. In the ashbeds, pottery fragments, pipes, stone axes, etc., were found in abundance. No iron relics have been reported. In a small ravine, near the site, there is a spring, which is the source of Brough's Creek, a stream of considerable size and importance in the east parts of the township. A little further down the stream from the source, on the farms next to Mr. Horne's, there are many old beaver dams. The camps were on the east side of the ravine, and may have been connected with the beaver-trapping at the adjacent dams.

52. On the west half of lot 12, concession 10. Henry Jermey. There is a low hill with a flat top, partly surrounded by ravines, where the farm occupants have found relics and other evidences of a village. Thus situated on an isolated, compact patch of this kind the village was probably palisaded. It is located upon the east fifty acres of the west half (formerly Wm. Harrison's fifty).

53. On the east half of lot 13, concession 11. William Johnston. Mr. Johnston has lived here for many years, and has been a good observer, having taken notice of many points and features in connection with this village-site. They have found pottery fragments, stone axes, pipes, etc., and a human jawbone, but he reports no iron relics. Mr. Johnston estimates the site covers two acres. It is near springs which flow to Brough's Creek, and also at an abandoned shoreline. When this neighborhood was in forest, deer had a runway toward Lake Simcoe, from the higher ground a little to the northwest of this place, and Mr. Johnston thinks this circumstance had something to do with the selection of the site. The old runway passes near this place, which is on the edge of the swamp, at a narrow part of it.

54. On the east half of lot 10, concession 11. Richard Anderson. He has found pottery fragments, a pipe, two iron tomahawks, and other evidences of early occupation; though these were probably not extensive, as there are no springs now at the surface of the ground. Mr. Anderson also found a few pottery fragments and skinners on the east half of lot 11, concession 11, which he also owns.

55. On the east half of lot 11, concession 12. Alexander Brown. Camps strewn with pottery fragments, pipes, etc., were found beside the stream here (Rugby Creek).

56. On the east half of lot 12, concession 13. Silas Locke. Mr. Locke has found pottery fragments, etc., in a field north of his barn. The ground at the place is comparatively low, and near Rugby Creek. He has found skinners at the site and elsewhere on his farm, but no iron relics.

57. On the northeast quarter of lot 10, concession 14. Thomas Morrison. There are about four acres on raised ground, on which remains have been found. This patch extends into the adjoining farm of Robert Anderson, southeast quarter of lot 10. There were some prominent ash-heaps, and quantities of pottery fragments, pipes, etc., have been found. There is conflicting evidence of the finding of two iron tomahawks. A boulder or two of some kind of ore was found on the site, its peculiar coloring having perhaps attracted the attention of the Indians. Mr. Morrison regards it as a "worship stone." In 1899 I obtained five typical relics from Mr. Morrison, and they are now in the Ontario Museum: 21370-71, two bone awls; 21372, part of small clay vessel, with finger-nail markings; 21373, two bone beads, one within the other, as found. A few single graves had stones in them besides the bones.

58. Along the south edge of the main swamp there are a few sites, but they are less extensive and numerous than those on the north edge. On the east half of lot 16, concession 6, John C. Steele, who formerly owned and occupied this farm, found some pottery fragments, a stone axe, and other evidences of the aborigines; but he said these were few in comparison with other sites. And the evidences have been obliterated by cultivation, as the present occupant, Peter McCuaig, has observed no signs of ashbeds or pottery fragments. The farm was originally the Dunsmore homestead.

59. On the east part of lot 15, concession 8. Robert Paisley. Some remains were found on this land, more especially when Jas. Coates lived on it. He found, about twenty years ago, some flints, pipe-heads, etc. The place overlooks the wide, swampy basin already mentioned. Originally it was cleared by the Bell family, who found the first traces of Indian occupation.

On the west half of lot 16, concession 12, the occupant, James Maudsley, ploughed up, about the year 1867, a sword or rapier of an interesting kind. This blade bears on one side the inscription, "M. C. Fecit," and on the other, "in Valencia." It was exhibited

at the Historical Loan Exhibition in Toronto in 1899 by its present owner, Lawrence Heyden. The place where it was found is not a village-site, and there is no site known to me within a mile of it. But it was in the course of a trail, on a gravel ridge near the southeast corner of his farm. A stone pipe was once found on the same farm, and other articles scattered here and there in the neighborhood show the course of the old trail.

60. On the east half of lot 15, concession 13. Harris Wigg is the present occupant. Formerly Silas Baskerville occupied it. Pottery fragments, pipes, stone axes, etc., were found here several years ago. Brough's Creek passes through the adjoining farm, on the north side.

61. On the east half of lot 16, concession 13. John Leigh. This is a somewhat important site. Remains have been found near springs, which are the source of a stream flowing eastward to Lake Simcoe. The relics, which include iron tomahawks, were numerous just south of an old orchard. Some of the pipe-bowls are of the Belt pattern (see Site No. 5)—a distinctively Huron pattern.

62. On the northeast quarter of lot 14, concession 14. Peter Robinson. The usual relics have been found here. Donald McCallum of the east half of lot 11, concession 13, found many relics here about 1884, including two stone mortars. No iron relics are remembered by Mr. Robinson. The site occupies about one-fifth of an acre, on top of the high hill overlooking the "Algonquin" shoreline. This abandoned shoreline built a large gravel bar across the valley of Brough's Creek here; and, as in so many other places, the Hurons evidently utilized this bar for the course of their trail across the valley toward the northeast.

63. On the east half of lot 20, concession 10. William Laughead. When Edward H. Allingham lived on this farm he found a few relics—a piece of a sword (rapier), two stone skinners, steel hunting knife, clay pipe—just enough to show occupation during the French period. The place is quite wet, and apparently unfit for permanent habitation; but it evidently marks the course of the old trail from Hawkestone to the interior of the township.

64. On the west half of lot 23, concession 9. Guy Kirkpatrick. The occupants have found pipes, pipe fragments, pottery fragments, etc.; and at a place near the barn they found a cache of nine stone axes. Six inches below the surface of the ground they found ashes, charcoal and pottery fragments. A boulder here showed marks of fire. On the adjoining farm of Archibald Ross, lot 24 (west half), a few remains have also been found.

65. On the east half of lot 24, concession 8. Richard O. Bell. This site is beside the Ridge road, which was probably a trail, and at the top of the "Algonquin" cliff. Mr. Bell has found the usual relics, especially when he dug a cellar for his house, including a human skull.

66. On the west half of lot 26, concession 9. Beside Lake Simcoe, at an attractive little cove in the shore. The land was for-

merly occupied by William Braydon, but is now unoccupied, though owned by Guy Kirkpatrick. (See Site 64.) This was an Indian landing-place from time immemorial, and a trail is said to have started from here into the interior of the township; but heretofore I have been unable to determine the course. Braydon found stone fire beds, pottery fragments, etc., and Capt. Burke, a lumberman who once carried on some operations here, is said to have found a sword at the place. On Mr. Burt's land, just eastward, isolated relics have been found.

67. On the west halves of lots 24 and 23, concession 12. This was a famous Indian landing-place at the outlet of Hawkestone Creek, and a trail ran from here toward the northwest. (See "Trails," Introduction.) William Hodges, the occupant, who has lived here since his birth in 1834, ploughed up some stone fire-beds, pottery fragments, iron tomahawks, etc. These were on the west side of the outlet of the creek, at the beginning of the trail. Similar remains have been found on the Capt. Davis farm, on the east side of the creek's outlet; and also at places nearer the creek itself.

68. On the east half of lot 19, concession 13. John Hazlett. The occupants have found on this site, at different times: two or three clay pipes, a stone pipe, some skinners, and quantities of pottery fragments, but no iron relics. Patches of reddened and blackened earth mark the site, which is beside the 14th line, or concession. I have seldom found sites marked by red-colored soil where the camp fires were placed; but whenever I do find such indications, the site bears every evidence of being a very old one. Isolated skinners have been found on the adjoining farm northward, lot 18.

69. On the west half of lot 19, concession 14. Alexander McPhie. The site is on the brow of the ridge overlooking the "Algonquin" shoreline, a little east of the farm buildings. The owner found there: pipes, flint knives, pottery fragments, brass or copper kettles, with a capacity of two or three quarts. These things were found when the land was first cleared; cultivation has partly obliterated the traces of the aborigines.

Barrie, Ont., Dec., 1902.

RAINMAKING.

Red Cloud, or, William Bill, or, as he is commonly called, Captain Bill (half Onondaga and half Cayuga), who lives on our Tuscarora Reserve, claims to be able to control the rainfall. When the Pan-American Exhibition was held, he states that during a long spell of rain he brought about a change, for which he was

Red Cloud.

well paid by some exhibitors whose interests depended on dry weather.

Herewith is his own account of the Rain Dance ceremonies:

"In the first place, you make fire, good burning fire, burn bright, then you put on some tobacco, not this kind you buy in a store, but good tobacco what is grown at home, good Indian

tobacco. Then the smoke goes away up. Then the chief speaks to Rawen Niyoh. He says to him: 'I want you to take care of the Indians, your own people. My family here, I want rain. Things won't grow, too dry, we must have corn, so here is some tobacco for you so you know we are here and want rain.' Then we make a dance and sing six songs for rain. This is the way we make a dance. We put up a pole about eight feet high, in the right place, feathers on top, eagle feathers if we can get them, fish-hawk feathers will do. Paint red in rings round the pole, make paint from a red stone we find in the creeks. Then we dance round the pole, go round side to the east, then to the north and turn west.

"We don't let no women come in this dance, they would spoil all the chances to get rain, women no good for rain-dance, but the women may bring cakes or anything to eat for the men.

"After the men done dancing outside, the women go into the longhouse and dance the Trotting Dance, then the Shuffling Dance, and after the Shuffling Dance the men have dances in the longhouse, and the women may mix with them.

"The Rain Dance may be at any time in the day or the night.

"When white men want rain they sometimes pay Indian a whole hog, or a bag of flour to bring it.

"If I want to stop rain, just put some ashes and coal and some tobacco in a little tin dish, and look towards the west, and just watch it."

REPORTS WANTED.

Readers who may have spare copies of the Ontario Archaeological Reports for 1886-7, or 1890-1, will confer a great favor by presenting them to the curator, who desires to have two or three complete sets bound.

A few copies of Notes on Primitive Man, 1895, are also required.

JOHN WESLEY POWELL.

(March 24th, 1834—September 23rd, 1902.)

Major J. W. Powell, A.M., LL.D., Ph.D., died at Haven, Maine, of arterial sclerosis, at sunset on Tuesday, September 23rd.

Born in Mount Morris, New York, he dwelt in Ohio and Wisconsin with his father's family, and afterwards settled in Northern Illinois, where he received a collegiate education and entered on a professional, scientific career. After the close of the Civil War, in which he served, he resumed professional work. In 1867 he took a class into the Rocky Mountain region, thus inaugurating the summer-school system. In 1869 he led a party through the Grand Canon of the Colorado, in one of the most remarkable exploring trips ever made in North America. This exploration grew into the United States Geographical and Geological Survey of the Rocky Mountain Region, of which he was made Director. In 1879 this survey was merged with three others in the United States Geological Survey, while the ethnologic work of the Powell survey was taken up by the Bureau of Ethnology, created at the same time, with Major Powell as Director. In 1880 he became Director also of the United States Geological Survey, which position he filled until 1894; subsequently he devoted himself to ethnologic researches.

Major Powell was prominently connected with many scientific organizations. He was the leading founder and first President of the Cosmos Club of Washington, in 1878, and of the Anthropological Society of Washington in 1879, and one of the founders of the Archaeological Institute of America in the latter year; he was President of the American Association for the Advancement of Science in 1888. At the time of his death he was Director of the Bureau of American Ethnology, a Vice-President of the American Anthropological Association, an editor of the American Anthropologist, an editor of "Science," a trustee of Columbia University, and a member of many executive boards of scientific societies.

Abbreviated from the "American Anthropologist."

UNIVERSITY OF TORONTO.

AUDITOR'S REPORT

TO THE

BOARD OF TRUSTEES

ON

CAPITAL AND INCOME ACCOUNTS

FOR THE

YEAR ENDING 30TH JUNE, 1902.

ADOPTED DECEMBER 19TH, 1902.

TORONTO:
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1903.

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TORONTO.

AUDITOR'S REPORT

TO THE BOARD OF TRUSTEES ON CAPITAL AND INCOME ACCOUNTS FOR THE

YEAR ENDING 30TH JUNE, 1902.

TORONTO, 17th October, 1902.

To the Trustees of the University of Toronto:

GENTLEMEN.—I have the honour to present the financial statement for the year ending 30th June, 1902.

The estimates for the year 1901-1902 which were finally passed on the 21st September, 1901, show:

Estimated expenditure, exclusive of departments sustained by Government	$120,185 91
Available revenue	108,763 14
An estimated deficit of	11,422 77

It will be seen from the return now presented that the actual deficit to 30th June, 1902 was $10,353.02. The saving arose from fees received in excess of the estimate; the income from endowment would also probably have exceeded expectations had it not been necessary to withdraw from investment $125,000, to provide for the contract price of the new medical building, now in course of construction upon the site of the south lodge. The expenditures were kept within the appropriations.

The statements submitted follow the plan of previous annual returns. An appendix is added, numbered five, containing the details of the salary expenditures, the estimates for the past year not having been printed. No attempt has been made to adjust the values affixed to the lands and buildings, which continue to be those of 1892; the investment valuations do not call for adjustment.

W. H. CROSS,
Auditor.

APPENDIX 1.

BALANCE SHEET 30TH JUNE, 1902.

Funds.

General Endowments Fund, Schedule	1	$3,503,729 15	
Specific Endowment Funds "	2	80,143 97	
Retirement Fund "	3	64,395 61	
Trust Funds "	4	27,789 43	
Contingent Funds "	5	11,836 13	
			$3,687,894 29

ASSETS.

Site lands, buildings and contents, Schedule 6	$1,470,675 29		
Unproductive lands " 7	820,170 13		
Leased property " 8	528,082 45		
Investments " 9	868,899 20		
Past due fees " 10	67 22		
		3,687,894 29	

SCHEDULE 1.

GENERAL ENDOWMENTS FUND.

Value of additions to Library during year 1901-1902 as shown by accession catalogue	$7,042 13		
Less depreciation of three per cent. upon $129,019.10	3,873 27		
		$3,168 86	
Avenue frontage licenses :—			
Dr. L. L. Palmer	$770 00		
David Fasken	630 00		
G. M. Kelley	500 00		
Dr. R. G. McLaughlin	495 00		
J. C. McGee	495 00		
Mrs. Jane Somers	425 00		
Mrs. Emily Clubb	150 00		
Charles A. Burns	150 00		
		3,615 00	
		$6,783 86	
South lodge building removed from site of new Medical building		1,000 00	
Additions to the fund for the year		$5,783 86	
Fund of 30th June, 1901		3,497,945 29	
Fund of 30th June, 1902		$3,503,729 15	

SCHEDULE 2.

SCHOLARSHIPS TRUST FUNDS.

Blake, Matriculation	$22,927 17	
Blake, Science and Moderns	3,750 00	
Moss, Classics	2,000 00	
William Mulock, Classics and Mathematics	2,000 00	
Daniel Wilson, Natural Science	2,000 00	
George Brown, Modern Languages	1,128 34	
George Brown, Medical Science	5,391 72	
Clark, Medical Psychology	50 00	
Mary Mulock, Classics	2,778 74	
William Ramsay, Political Economy	1,009 42	
Julius Rossin, German	1,000 00	
Bankers, Political Science	1,200 00	
John Macdonald, Philosophy	2,030 00	
Physics	2,350 00	
Prince of Wales Prize, General Proficiency	950 00	
Mackenzie Memorial	17,834 60	
Fulton Bequest	3,291 30	
Starr Bequest	4,775 23	
Lyle Medal	185 43	
Young Memorial	3,092 22	
Gibson, Matriculation	200 00	
Board of Trade, Commercial	200 00	
		$80,143 97

NOTE.—TRANSACTIONS FOR YEAR.

Return of June 30th, 1901	$80,680 33	
Interest appropriation	3,917 14	
Board of Trade, Commercial	200 00	
Rent Starr Farm	120 00	
Gibson, Matriculation	100 00	
Goldwin Smith Scholarship	75 00	
Dr Clark Scholarship	50 00	
Dale Scholarship	60 00	
Flavelle Travelling Fellowship	750 00	
	$85,952 47	
Scholarship expenditures	4,430 00	
	$81,522 47	
Stewart Bequest transferred to Library funds	1,378 50	
		$80,143 97

SCHEDULE 3.

RETIREMENT FUND.

Beneficiaries 30 June, 1902.

James Loudon	7,002 69	
Alfred Baker	4,218 77	
Maurice Hutton	4,218 77	
R. Ramsay Wright	4,218 77	
W. J. Alexander	4,218 77	
J. G. Hume	3,957 07	
J. F. McCurdy	3,312 16	
James Mavor	3,065 30	
G. M. Wrong	2,447 18	
A. B. McCallum	2,098 60	
W. H. Fraser	2,098 60	
John Squair	3,098 60	
J. E. Berkeley Smith	2,084 13	
John Fletcher	1,798 85	
W. J. Loudon	1,589 88	
D. R. Keys	1,589 88	
H. H. Langton	1,427 28	
W. Lash Miller	1,116 17	
W. S. Milner	1,103 68	
J. H. Cameron	1,103 68	
G. H. Needler	1,103 68	
August Kirschmann	1,063 19	
A. T. DeLury	955 84	
C. A. Chant	955 84	
E. C. Jeffrey	955 84	
Adam Carruthers	934 17	
James Brebner	923 87	
J. C. McLennan	655 93	
W. R. Lang	483 10	
R. G. Murison	450 42	
G. W. Johnston	450 42	
P. Toews	298 65	
T. L. Walker	136 35	
F. B. Kenrick	96 60	
F. B. Allan	96 60	
F. Tracy	66 28	
		$64,395 61
Fund of 30th June, 1901	$55,370 13	
Interest as per terms of Order in Council	3,449 67	
Contributions, 1901-1902	5,896 27	
	$64,716 07	
Withdrawal, R. R. Bensley	320 46	
		$64,395 61

SCHEDULE 4.

Trust Accounts.

Library Funds :		
Insurance, balance 1890 fire indemnity	$13,850 78	
Greek	30 00	
Medical	300 00	
King Alfred Millenary Fund	10,000 00	
Phillips Stewart bequest	1,378 50	
		$25,559 28
Museum donations		27 78
Biological students' supply		3 42
Mineralogical and Geological Department		8 21
Local lectures fund		349 79
Residence Extension Fund		960 42
Langton Memorial		30 00
Convocation Hall Fund		205 75
Sir Wm. Mulock		644 78
		$27,789 43

Note as to Year's Transactions.

Return of 30th June, 1901		$19,816 25	
Interest appropriations		713 88	
Receipts during 1901-1902		11,708 41	
Stewart bequest transferred from specific endowment account		1,378 50	
		$33,617 04	
Library expenditures, $5,473.25, of which $1,700 has been made a charge upon this year's revenue	$3,773 25		
Museum, paid for specimens from part of subscriptions obtained by Prof. Wright	205 58		
Biological Students' Fund, paid for material and apparatus from Laboratory fees collected for each year	1,212 37		
Local Lectures Fund—Expended portion of proceeds of lectures	28 85		
Medical Trust Funds—Paid to Faculty	607 56		
		$5,827 61	
			$27,789 43

SCHEDULE 5*a*.

Contingent Funds.

Balance of fund on 30th June, 1901		$18,065 92	
Expenditure upon Revenue Accounts later than 30 June, 1902 :			
Fire Premiums, portion of policies expiring 31 December, 1903	$1,786 60		
Granolithic sidewalks, unpaid portion of outlays	350 00		
Dining Hall advances	2,093 19		
Printing plant, portion of outlays upon equipment	2,000 00		
		6,229 79	
			$11,836 13

SCHEDULE 5*b*.

Income Accrued but Not Due.

Accounts.	30th June, 1901.	30th June, 1902.
Debentures	$ 5,196 33	$ 6,110 37
Mortgages	5,838 28	4,998 60
Park rentals	4,413 75	5,576 25
School of Science	154 58	154 58
Business rentals	778 84	808 84
City of Toronto	1,500 00	1,500 00
Interest from land sales	64 93	858 40
Endowment income	$17,946 71	$20,007 04
Agricultural fees	123 94	46 22
School of Practical Science	2,066 00	.....
Other fees	34 00	21 00
	$20,170 65	$20,074 26

SCHEDULE 5*c*.

Revenue 1901-2.

Income.

	Estimate.	Actual.
Interest :		
On purchase moneys	$ 2,242 17	$ 2,180 59
On loans	17,188 20	16,072 37
On debentures	11,169 86	11,738 23
On bank balances	550 00	717 05
Rents :		
University Park	13,750 00	12,697 69
Business properties	3,475 00	3,821 40
School of Science	925 00	925 00
Medical Faculty	1,900 00	1,900 00
Board of Health	200 00	200 00
City of Toronto payment	6,000 00	6,000 00
Legislative grant, general	7,000 00	7,000 00
Wild lands sold	3,000 00	2,874 87
Sundry earnings, land	2,600 00	2,590 51
Gymnasium fees	1,100 00	1,245 15
University and College fees	46,000 00	48,632 28
	$117,100 23	$118,595 14
Less interest on Trust Funds reserved	8,337 09	8,080 69
Income	$108,763 14	$110,514 45

Outlays.

Appropriations as per estimates adopted by the Board 21st September, 1901, as per summary in 5*d*	$120,185 91	
Less unused thereof	60 79	
	$120,125 12	
Arrears on 1st July, 1901	742 35	
		$120,867 47
Specific grant for 1901-2		$ 10,353 02

SCHEDULE 5*d*.

SUMMARY OF REVENUE EXPENDITURES, 1901-2.

Service.	Appropriations.	Unforeseen.	Unused.
Salaries (details in appendix 5)	$85,336 16	.....	$188 16
Pensions	2,800 00	.....	.....
Examinations	5,225 00	.....	.....
University advertising	400 00	.....	21
" incidentals	175 00	.....	48
" College stationery	75 00	.....	.....
" " printing	75 00	.....	.....
" " advertising	100 00	.....	39
" " incidentals	50 00	.....	19
General incidentals	750 00	34 75	.....
University Press (portion of expenditures)	.....	246 27	.....
Royal Society of Canada grant towards expenses of meeting	.....	100 00	.....
Administration.			
Senate elections	500 00	.....	171 00
Convocation expenses	800 00	52	.....
Bursar's office	750 00	.....	34
Registrar's office	1,600 00	423 94	.....
Law costs	1,500 00	.....	5 00
Telephones	200 00	17 50	.....
President's office	325 00	1 25	.....
Vice-Chancellor's honorarium	400 00	.....	.....
" expenses	350 00	.....	50 00
Maintenance.			
Insurance	1,800 00	.....	.....
Grounds	2,750 00	.....	2 00
Main building	3,700 00	300 00	75
Library building	650 00	.....	14 93
Biological building	2,130 00	.....	12 84
Gymnasium building	1,250 00	.....	124 74
Library	1,700 00	.....	.....
Museum and Biological buildings (special repairs)	.....	430 81	.....
Departments.			
Biological	2,594 75	.....	10 13
Physiological	700 00	.....	.....
Philosophical	150 00	.....	.....
Mathematical	.....	150 00	76 50
Political science	75 00	.....	50 00
Classical	30 00	.....	24 25
English	100 00	.....	.....
French	40 00	.....	.....
German	40 00	.....	30 16
Italian and Spanish	20 00	.....	.....
Oriental	25 00	.....	.....
History	20 00	.....	3 85
	$119,185 91	$1,705 04	
Unforeseen	1,000 00	1,000 00	
	$120,185 91	$705 04	
Unused of unforeseen	60 79	765 83	$765 83
Total expenditures from Revenue 1901-2	$120,125 12	$60 79	

SCHEDULE 6.

Site Lands, Buildings and Contents.

30th June, 1902.

Lands set apart for the use of the University		$475,361 40	
Main building and residence		450,000 00	
Museum building		73,085 42	
Biological building		56,659 88	
Library building		110,015 65	
Chemical building		77,469 88	
Gymnasium building		36,288 46	
Y.M.C.A. Hall		1 00	
			$1,278,881 69
Library, books, etc		$125,235 83	
Museum, including fittings and biological apparatus		24,691 02	
Chemical apparatus		9,975 90	
Mineralogical and geological apparatus		8,212 16	
Physical apparatus		15,900 00	
Psychological apparatus		1,800 00	
Mathematical apparatus		600 00	
			186,414 91
Main building furniture		$3,841 20	
Residence furniture		1,537 49	
			5,378 69
			$1,470,675 29
Return of 30th June, 1901		$1,468,506 43	
Additions to Library during year		7,042 13	
		$1,475,548 56	
Yearly allowance for depreciation of Library	$3,873 27		
South Lodge, value attached to this building written off	1,000 00		
		4,873 27	
			$1,470,675 29

SCHEDULE 7.

Unproductive Lands.

Hoskin Avenue and Devonshire Place survey	$176,356 70	
Unsurveyed land east of Devonshire Place survey	217,657 53	
Block 131 feet s. s. Bloor by 200 feet on e. s. North Drive	31,251 00	
Lots 51, 52 and 54, s. s. Bloor west of North Drive	44,398 50	
Lots on College Avenue Nos. 3, 6, 8 and 9	36,864 00	
Lots in Port Hope	7,100 00	
Lots near Belleville	1,790 00	
Farm lands	152 00	
College block, King Street, Toronto, unsold	304,600 40	
		$820,170 13

Transactions During 1901-1902.

Transfer to Victoria University of block e. of North Drive save portion 131 feet fronting on Bloor by 200 feet deep	$55,500 00	
Sales of portions of College block :—		
170x187 s. w. cor. Adelaide and Duncan	18,250 00	
60x187 n. w. cor. King and Duncan	9,000 00	
100x186 s. e. cor. King and Duncan	15,000 00	
400x185.6 n. w. cor. King and Simcoe	70,000 00	
Leases of lots 69, 70, 71 West of North Drive for $1,825 per annum	46,875 00	
	$214,625 00	
Return of 30th June, 1901	1,034,795 13	
		$820,170 13

SCHEDULE 8.

Leased Lands.

Victoria College site	$1 00	
Wycliffe College site	2,500 00	
Observatory site	1 00	
School of Science site	18,500 00	
Land leased to City of Toronto	120,000 00	
Park lands	239,080 00	
Toronto business properties	78,038 10	
Caradoc farm	2,000 00	
Cavan farm	4,500 00	
Valuation of lands		$417,745 10
St. George Street house and land	$8,031 85	
Cumberland house and land	14,842 75	
Pembroke Street house and land	4,778 39	
Park Hospital building	24,982 16	
		52,635 15
Wycliffe College pavement		1,197 01
Park and business ground rents :—		
Past due	1,590 52	
Accrued but not due, park rentals	5,730 83	
City of Toronto payment	1,500 00	
Business ground rents, accrued but not due	808 84	
		9,630 19
		$528,082 45
Return of 30th June, 1901	479,837 09	
Park lands leased during year	46,875 00	
Increased revenue outstanding	1,475 75	
	528,187 84	
Less.		
Wycliffe pavement instalment	105 39	
		$528,082 45

SCHEDULE 9.

Investments, 30th June, 1902.

Debentures and municipal bonds	$290,660 23	
Interest accrued but not due	5,911 59	
		$296,571 82
Loans secured by mortgages upon real property	$319,473 27	
Advanced as premium on fire policies	84 57	
Interest past due	1,568 73	
Interest accrued but not due	4,998 60	
		326,125 17
Unpaid purchase money on land sales	$112,538 18	
Interest past due	70 75	
Interest accrued but not due	858 40	
Earnings past due	106 00	
		113,573 33
		$736,270 32
Canadian Bank of Commerce on deposit 30th June, 1902	$116,485 24	
Subsequent deposit of cheque from the Provincial Treasury	5,444 75	
Earnings of University press not paid on 30th June, 1902	345 87	
Advanced to meet overdraft on Revenue Account, 1901-1902 as per Schedule 5c	10,353 02	
		132,628 88
		868,899 20

TRANSACTIONS 1901-1902.

Inwards.

Debentures paid off		$56,701 45	
Loans repaid		36,973 08	
Purchase money payments		66,707 66	
Decreased revenue account outstanding		1,460 20	
Withdrawals from Canadian Bank of Commerce		220,388 45	
			382,230 84

Outwards.

Debentures purchased		$59,454 86	
Mortgage re-investment		4,682 00	
Sale of park land to Victoria University		55,500 00	
Sale of U. C. College land		112,250 00	
Deposits in Canadian Bank of Commerce		324,290 00	
To be deposited:—			
Cheque of Provincial Treasurer	$5,444 75		
do do	10,353 02		
University Press accounts	345 87		
		16,143 64	
			572,320 50
Increase in volume during year			$190,089 66
Return of 30th June, 1901			678,809 54
Return of 30th June, 1902			$868,899 20

SCHEDULE 10.

FEES.

Actual receipts during 1901-2			$50,997 50
Deduct arrears of 30th June, 1901, collected and included in above amount		$2,422 44	
1. Dispensation fee written off		5 00	
2. Library fees "		4 00	
Part of Examination fee written off		1 00	
			2,432 44
			$48,565 06
Add arrears of 30th June, 1902			67 22
Fees of 1901-2			$48,632 28

NOTE.

Arrears of 30th June, 1902—			
Agricultural arrears on 30th June, 1901		$123 94	
Examination outlay, 1901-2		277 28	
7 Degrees		70 00	
		$471 22	
Received from Department of Agriculture		425 00	
			$46 22
1 Registration fee			18 00
3 Library fees			6 00
1 Chemical Supply fee			2 00
			$72 22
Less part of 1 Registration fee paid in advance			5 00
Arrears of 30th June, 1902			$67 22

APPENDIX 2.

Fees Received 1901-2.

Faculty of Arts.

Subject.	1st Year.	2nd Year.	3rd Year.	4th Year.	Miscellaneous.
	$ c.	$ c.	$ c.	$ c.	$ c.
College fees	4,603 00	4,194 00	3,531 00	3,265 00	146 00
Penalties	9 00	20 00	50 00	24 00	.....
Dispensations	35 00	95 00	50 00	75 00	15 00
Honor Certificates	.....	.....	.....	2 00	78 00
Matriculation	42 00	41 00	5 00	.....	720 00
Ad Eundem	.....	10 00	.....	20 00	.....
Examination	2,520 00	3,377 00	2,492 00	2,328 00	780 00
Degrees	.....	.....	.....	1,290 00	360 00
Chemical supply	20 00	90 00	89 00	64 00	.....
Mineralogical supply	.....	24 00	12 00	16 00	.....
Biological supply	64 00	85 00	114 00	60 00	.....
Physical supply	36 00	27 00	227 00	198 50	.....
Psychological supply	.....	.....	52 00	36 00	.....
Library	382 00	372 00	302 00	250 00	4 00
Medical Students :					
Matriculation	10 00	10 00	8 00	7 00	5 00
Ad Eundem	.....	10 00	20 00	.....	10 00
Examination	1,150 00	1,160 00	1,360 00	719 00	260 00
Degrees'	.....	.....	.....	1,020 00	110 00
Chemical supply	336 00	318 00	.....	.....	.....
Biological supply	169 50	291 50	.....	.....	.....
Physiological supply	.....	212 00	.....	.....	.....
Instruction to Medical Faculty in Arts Subjects	1,610 00	1,590 00	.....	.....	.....
Instruction to Practical Science Students	2,470 00	1,079 00	92 00	.....	.....
Totals	13,456 50	13,005 50	8,404 00	9,374 50	2,488 00

Departmental Fees.

Subject.	Law.	Dentistry.	Engineering and Applied Science.	Music.	Pharmacy.	Pedagogy.
	$ c.	$ c.	$ c.	$ c.	$ c.	$ c.
Matriculation	60 00	195 00	.....	10 00	255 00	.....
Examination	130 00	647 00	180 00	30 00	510 00	200 00
Practical Examination	.....	.....	.....	.....	102 00	.....
Degrees'	100 00	615 00	180 00	60 00	510 00	60 00
Totals	290 00	1,457 00	360 00	100 00	1,377 00	260 00

Classification of Fees Paid.

First year	$13,456 50	
Second year	13,005 50	
Third year	8,404 00	
Fourth year	9,374 50	
Miscellaneous	2,488 00	
Law	290 00	
Dentistry	1,457 00	
Engineering	360 00	
Music	100 00	
Pharmacy	1,377 00	
Pedagogy	260 00	
Agriculture	425 00	
		$50,927 5

CLASSIFICATION OF SERVICES.

College fees	$15,739 00	
Penalties	103 00	
Dispensations	270 00	
Honor Certificates	80 00	
Matriculation	1,368 00	
Ad Eundem	70 00	
Examination	17,843 00	
Practical examination	102 00	
Degrees	4,305 00	
Chemical supply	917 00	
Mineralogical supply	52 00	
Biological supply	784 00	
Physiological supply	212 00	
Physical "	488 50	
Psychological "	88 00	
Library	1,310 00	
Instruction to Medical Faculty, Art Subjects	3,200 00	
" Practical Science Students	3,641 00	
Agriculture, payment by Government	425 00	
		$50,997 50

APPENDIX 3.

DEPARTMENTS DIRECTLY SUSTAINED BY THE PROVINCE.

Salaries (Details in Appendix 5)	22,129 75	
Chemistry and Physics ; share of examination expenses	305 00	
Physical department expense	1,800 00	
" share, maintenance of main building	1,725 00	
Chemical department, expense	1,000 00	
" maintenance of building	2,585 00	
Mineralogical and Geological departments expense	791 79	
" share, maintenance of Biological building	100 00	
		30,436 54
Amount paid under the estimates for these services		30,444 75
Amount in hands of Trustees belonging to the Province		$8 21

APPENDIX 4.

MEDICAL FACULTY INCOME.

First year	12,051 00	
Less Arts portion	1,610 00	
		10,441 00
Second year	10,950 00	
Less Arts portion	1,590 00	
		9,360 00
Third year		9,417 00
Fourth year		5,530 00
Miscellaneous fees		1,090 00
Registration fees		645 00
Psychological fees (collected for Dr. Daniel Clark)		265 00
Interest on bank account		346 21
Receipts during 1901-2		$37,094 21

Expenditures.

Salaries; (details in Appendix 5)		24,615 73
Rents of:		
Biological building	1,900 00	
Gerrard Street building	1,000 00	
		2,900 00
Interest on University advance 4% on $3,200	128 00	
Repayment of part of advance	800 00	
		928 00
Working expenses		8,650 48
		$37,094 21

APPENDIX 5.

SALARIES.

Year Ending 30th June 1902.

University and University College:		
Departments sustained by Provincial Government		22,129 75
Departments not so sustained	33,625 00	
University College, teaching staff	34,575 00	
Administration and general service	16,948 00	
		85,148 00
Medical Faculty		24,615 73
Total of salaries for year		$131,893 48

APPENDIX 5.

SALARIES, DEPARTMENTS SUSTAINED BY GOVERNMENT.

Name.	Services.		
	Chemistry.		
W. R. Lang	Professor	$2,600 00	
W. Lash Miller	Associate Professor	1,900 00	
F. B. Allan	Lecturer	1,075 00	
F. B. Kenrick	"	1,075 00	
Miss C. C. Benson	Fellow	500 00	
C. M. Carson	Assistant	400 00	
E. Repath	Caretaker & Attendant	504 00	
W. Sullivan	Boy cleaner, &c	150 75	
			8,204 75
	Physics.		
James Loudon	Professor	$3,200 00	
W. J. Loudon	Demonstrator (now Associate Professor)	1,800 00	
J. C. McLennan	Demonstrator (now Associate Professor)	1,800 00	
C. A. Chant	Lecturer	1,800 00	
J. S. Plaskett	Mechanician	1,000 00	
G. R. Anderson	Lecture Assistant	650 00	
W. R. Carr	Temporary Assistant	45 00	
E. F. Burton	" "	30 00	
W. T. Green	" "	12 50	
W. F. McFarlane	" "	12 50	
			10,350 00

Mineralogy and Geology.

A. P. Coleman	Professor of Geology	$500 00	
T. L. Walker	Professor of Geology, Mineralogy, &c. (9 months)	1,875 00	
W. A. Parks	Instructor (new Lecturer)	1,000 00	
Wm. Stewart	Attendant in Laboratory, &c.	200 00	
			3,575 00
	Paid by Provincial Government		$22,129 75

SALARIES, UNIVERSITY & UNIVERSITY COLLEGE, (EXCLUDING DEPARTMENTS SUSTAINED BY GOVERNMENT.)

A.—Modern History and Ethnology.

Geo. M. Wrong	Professor	$3,175 00	3,175 00

B.—Political Science.

James Mavor	Professor	$3,200 00	
McGregor Young	Prof. of Constitutional & International Law	750 00	
A. H. F. Lefroy	Prof. of Roman Law, Jurisprudence, &c	750 00	
S. M. Wickett	Lecturer	1,000 00	5,700 00

C.—Mathematics.

Alfred Baker	Professor	$3,200 00	
A. T. DeLury	Lecturer (now Associate Professor)	1,800 00	
E. F. Burton	Fellow	500 00	5,500 00

D.—Biology.

R. Ramsay Wright	Professor	$3,200 00	
E. C. Jeffrey	Lecturer	1,800 00	
R. R. Bensley	Demonstrator	325 00	
W. H. Piersol	Demonstrator	450 00	
S. H. Westman	Demonstrator	150 00	
E. R. Hooper	Class Assistant	50 00	
C. M. Fraser	Instructor & Laboratory Ass't	250 00	
R. B. Thomson	"	250 00	
B. A. Bensley	Lecturer in Zoology	500 00	
A. H. Adams, W. J. McCollum, E. A. McCullough, M. H. Embree (each $50)	Class ass'ts for Session	200 00	
J. A. Roberts ($25), H. G. Willson ($25),	" "	50 00	
Archibald Pride	Sub-Curator of Museum	750 00	
D. J. Clark	Attendant & Caretaker of Building	500 00	
W. Harris	Boy attendant, &c	120 00	
N. Ashlee	" (temporary)	30 00	8,625 00

Physiology.

A. B. McCallum	Professor	$2,500 00	
F. H. Scott	Demonstrator	600 00	3,100 00

Italian & Spanish.

W. H. Fraser	Professor	$2,500 00	
E. J. Sacco	Instructor, Italian	400 00	
P. Toews	" Spanish	50 00	
			2,950 00

Logic & Metaphysics.

August Kirschmann	Associate Professor of Philosophy.	$1,900 00	
Frederick Tracy	Lecturer	1,475 00	
A. H. Abbott	Instructor & Laboratory Assistant	1,000 00	
W. G. Smith	Laboratory Assistant	200 00	
			4,575 00
			$33,625 00

Ethics.

J. G. Hume	Professor	$3,200 00	
			3,200 00

Greek.

Maurice Hutton	Professor	$3,200 00	
A. Carruthers	Lecturer	1,800 00	
			5,000 00

Latin.

J. Fletcher	Professor	$3,075 00	
W. S. Milner	Lecturer	1,800 00	
G. W. Johnston	"	1,475 00	
			6,350 00

Oriental Literature.

J. F. McCurdy	Professor	$3,200 00	
R. G. Murison	Lecturer	1,475 00	
			4,675 00

English.

W. J. Alexander	Professor	$3,200 00	
D. R. Keys	Lecturer	1,800 00	
			5,000 00

French.

John Squair	Professor	$2,500 00	
J. H. Cameron	Lecturer	1,800 00	
St. Elme de Champ	Instructor	750 00	
			5,050 00

German.

W. H. Vandersmissen	Professor	$2,500 00	
G. N. Needler	Lecturer	1,800 00	
P. Toews	Instructor	1,000 00	
			5,300 00
			$34,575 00

ADMINISTRATIVE DEPARTMENTS AND GENERAL SERVICE.

James Loudon	President University of Toronto	$1,800 00	
Maurice Hutton	Principal University College (9 months)	225 00	
			$2,025 00

Bursar's Office.

J. E. Berkeley Smith	Bursar	$2,000 00	
F. A. Mouré	Accountant	1,200 00	
H. J. Bolitho	Fees Clerk	600 00	
			3,800 00

Registrar's Office.

James Brebner	Registrar	$1,500 00	
Miss M. E. Hunter	Stenographer	50 00	
Miss Jean Rowland	do (Temporary)	34 00	
Miss A. W. Patterson	do	237 50	
			1,821 50

Library.

H. H. Langton	Librarian	$2,000 00	
Miss E. A. McMicking	Assistant	500 00	
Miss M. H. Buchan	do	487 50	
Miss F. B. Arnoldi	do and 1st delivery clerk.	482 50	
Miss G. Buchan	2nd delivery clerk	80 00	
S. H. Fussell	Caretaker	487 50	
			4,037 50

Gymnasium.

A Williams	Instructor	$800 00	
George Hare	Caretaker	576 00	
R. M. Millman	Secretary Athletic Association	200 00	
			1,576 00

General Service.

D. B. Dick	Architect	$100 00	
Robt. Martin	Bedel (with free house)	600 00	
F. Hanmer	Engineer (with house and fuel)	576 00	
W. Russell	Fireman (8 months at $35)	280 00	
J. Wicksey	Carpenter, etc	620 00	
C. E. Bradshaw	Janitor	450 00	
E. Tozer	Gardener in charge of grounds.	440 00	
J. Laballister and wife	Cleaners of Building	480 00	
F. Lindner	Boy messenger	142 00	
			3,688 00
			$16,948 00

MEDICAL FACULTY.

Professors.

Dr. A. Primrose	Anatomy	$1,500 00	
Dr. J. J. Mackenzie	Pathology	1,500 00	
I. H. Cameron	Surgery and Clinical Surgery	1,101 00	
Dr. A. McPhedran	Medicine and Clinical Medicine	1,101 00	
Dr. W. Oldright	Hygiene	1,101 00	
Dr. B. Spencer	Medical Jurisprudence	1,101 00	
Dr. A. H. Wright	Obstetrics	1,101 00	
Dr. U. Ogden	Gynaecology	734 00	
Dr. J. M. MacCallum	Pharmacology & Therapeutics	734 00	
Dr. R. A. Reeve	Opthalmology, etc	440 32	
Dr. G. R. McDonagh	Laryngology, etc	440 32	
Dr. W. H. Ellis	Toxicology	366 93	
			$11,220 57

Associate Professors.

Dr. G. A. Peters	Surgery and Clinical Surgery	$1,101 00	
Dr. G. H. Burnham	Opthalmology	293 60	
Dr. H. W. Aikins	Anatomy	734 00	
Dr. W. P. Caven	Clin. Medicine	734 00	
Dr. L. M. Sweetnam	Clin. Surgery	528 20	
Dr. H. A. Bruce	do	528 20	
Dr. J. F. W. Ross	Gynaecology	264 20	
Dr. H. T. Machell	Obstetrics, etc	308 19	
Dr. W. B. Thistle	Clin. Medicine, etc	528 19	
Dr. F. N. G. Starr	Clin. Surgery, etc	396 19	
Dr. J. A. Amyot	Pathology, etc	440 19	
C. F. Heebner	Pharmacology	440 20	
			6,296 16

Lecturers.

Dr. G. Boyd	Clinical Medicine	$293 60	
Dr. R. D. Rudolf	Med. and Clin. Medicine	367 00	
Dr. R. J. Dwyer	do do	367 00	
			1,027 60

Demonstrators and Assistant Demonstrators.

Dr. F. N. G. Starr	Anatomy	$150 00	
Dr. W. J. McCollum	do	100 00	
Dr. A. A. Small	do	100 00	
Dr. W. J. O. Malloch	do	100 00	
Dr. S. H. Westman	do	100 00	
Dr. E. R. Hooper	do	100 00	
Dr. W. J. Wilson	do	100 00	
Dr. C. L. Starr	do	100 00	
Dr. A. C. Hendrick	do	50 00	
Dr. A. J. Mackenzie	do	50 00	
Dr. D. McGillivray	do	50 00	
Dr. W. Goldie	Laboratory, Bacteriology	250 00	
Dr. G. Silverthorne	Pathology, etc	100 00	
Dr. C. J. Wagner	do	100 00	
Dr. T. D. Archibald	do	50 00	
Dr. M. M. Crawford	do	50 00	
Dr. A. R. Gordon	Clinical Medicine	176 28	
Dr. G. Chambers	do	176 28	
Dr. W. McKeown	Clinical Surgery	176 28	
Dr. C. L. Starr	do	176 28	
Dr. K. C. McIlwraith	Obstetrics	176 28	
			2,431 40

General Service.

Dr. A. Primrose	Secretary to Faculty	$900 00	
Dr. J. J. Mackenzie	Assistant Secretary	100 00	
do	Curator of Museum	300 00	
Thos. Motton	Janitor and Caretaker at Medical School Building	720 00	
George Lynne	Attendant and Caretaker at Anatomical Department	660 00	
John Anderson	Additional attendant during session only (Anat. Dept.)	245 00	
Louis Meyer	Boy Messenger and attendant	200 00	
			3,125 00

Miscellaneous.

Dr. Daniel Clark	Psychology fees collected for him	$265 00	
Dr. J. H. Richardson	Honorarium as retired Professor	250 00	
			515 00
(Medical Faculty) Total			$24,615 73

ANNUAL REPORT

OF THE

PRESIDENT

OF THE

UNIVERSITY OF TORONTO

FOR THE YEAR ENDING JUNE 30TH

1902

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY

TORONTO:
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1903.

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TORONTO.

ANNUAL REPORT

OF THE

PRESIDENT

OF

THE UNIVERSITY OF TORONTO.

To His Honor the Hon. Sir Oliver Mowat, K.C.M.G., Lieutenant-Governor of Ontario :

May it please your Honor,—

I have the honor to submit the following report for the year ending June 30th, 1902. It is the first report presented on the work and business of the University as a whole, and is prepared in accordance with the provisions of the University Act of 1902.

The Teaching Staffs.

The following is a tabular statement of the numbers engaged in teaching during the year in the Faculties named. These numbers include the Arts staffs of University College and Victoria College.

	Arts.	Medicine.	Applied Science.
Professors and Associate Professors	35	30	6
Lecturers and Demonstrators	18	11	7
Instructors and other Assistants	17	15	7
	70	56	20

Changes in the Staffs.

The following paragraphs contain notes of the more important resignations, appointments and promotions in the various faculties. In the case of new appointments, some reference has been made to the academic career of those app inted.

After the resignation of Professor Chapman in 1895, Professor Coleman, of the School of Practical Science, and Dr. W. A. Parks, acted as Professor and Instructor, respectively, in the subjects of Geology and Mineralogy. In 1901, Dr. Coleman was appointed Professor of Geology, including Economic Geology, on the understanding that he should have charge of this subject both in the Faculties of Arts and Applied Science. Under a similar arrangement, Dr. T. L. Walker was appointed to the chair of Mineralogy and Petrography in October, 1901, and Dr. Parks was promoted from an Instructorship to a Lectureship in Geology.

Professor Walker graduated in 1890 with highest honors in Chemistry and Mineralogy at Queen's University. In 1894 he proceeded to Leipzig, where he studied Mineralogy and Petrography and graduated with distinction as Doctor of Philosophy in 1896. During the years 1895-97, as a student of Mineralogy and Petrography at Leipzig, he held one of the Scholarships awarded by the Commissioners for the Exhibition of 1851. Besides occupying several positions in Canada, his professional appointments before receiving the professorship here include that of Assistant-Superintendent (1897), and Curator (1901), of the Geological Survey of India, and Lecturer on Geology (1898) in the Presidency College, University of Calcutta. He has published various papers which have appeared in the American Journal of Science, the Quarterly Journal of the Geological Society of London, etc., etc.

The staff in Mathematics has been strengthened by the appointment in June, 1902, of Dr. J. C. Fields as special lecturer in that department. Dr. Fields graduated at the University of Toronto in 1884, with highest honors in Mathematics. Subsequently he was elected a Fellow of Johns Hopkins University, where he received the Doctorate degree in 1887. From 1889 to 1892 he served as Professor of Mathematics in Allegheny College. In 1893 he went to Europe where he remained until 1900, pursuing his special studies and investigations, chiefly in connection with the Theory of Algebraic Functions, at Paris, Goettingen, and Berlin. His papers are published in Crelle's Journal (Berlin), in Acta Mathematica (Stockholm), the American Journal of Mathematics, and elsewhere.

In the same department Mr. A. T. DeLury, M.A., has been promoted from a Lectureship to an Associate Professorship.

In the Department of Physics the two demonstrators, Mr. W. J. Loudon, B.A., and Mr. J. C. McLennan, B. A., Ph.D., have been promoted to the rank of Associate Professor.

At the opening of the session Dr. R. R. Bensley and Dr. Joseph Stafford, of the Biological Department, resigned; the former to accept the position of Assistant Professor of Anatomy in the University of Chicago, and the latter that of Lecturer on Zoology in McGill University. At the close of the year Dr. E. C. Jeffrey received a call to an Assistant Professorship at Harvard University, and decided to accept it, although a full professorship of Botany was offered to him with the view of retaining his services here. The positions thus vacated have been filled by the appointment of Dr. B. Arthur Bensley as Lecturer on Zoology, of Dr. W. H. Piersol as Lecturer on Histology and Elementary Biology, and of Mr. J. H. Faull as Lecturer on Botany.

Dr. B. A. Bensley graduated in the University of Toronto with highest honors in the Natural Sciences in 1896, and during the next three years served successively as Assistant Fellow, and Acting Lecturer in Botany. In 1899 he was appointed Senf Fellow in Columbia University, where he engaged in researches on the Phylogeny of Mammals, receiving the degree of Ph.D. in 1902.

Dr. Piersol graduated in the University of Toronto with honors in Natural Science in 1895, and in Medicine in 1899. He has served as Instructor in Biology in McMaster University and as Assistant Demonstrator of Anatomy in this University.

Mr. Faull graduated in the University of Toronto with highest honors in Natural Science in 1898. After teaching at Albert College, Belleville, for two years, he engaged in research work here under Dr. Jeffrey and produced a valuable paper on the Anatomy of the Osmundaceae. Subsequently he was appointed to the Austin Fellowship at Harvard University, where he devoted himself to the study of the Fungi.

In Victoria College Associate Professors J. C. Robertson, B.A., and Pelham Edgar, Ph.D., have been promoted to the rank of Professor.

In the Faculty of Medicine Drs. W. McKeown and C. L. Starr, formerly Demonstrators in Clinical Surgery, were each promoted to the position of Lecturer in Clinical Surgery.

Dr. T. D. Archibald, formerly Assistant Demonstrator in Pathology, was promoted to the position of Laboratory Assistant in Bacteriology.

Dr. W. Goldie, formerly Laboratory Assistant in Bacteriology, was appointed Demonstrator in Clinical Medicine.

Dr. A. R. Gordon and G. Chambers were each promoted from the position of Demonstrators in Clinical Medicine to that of Lecturer in Clinical Medicine.

Students in Arts, Medicine, and Applied Science.

Arts.—(1) B.A. Course.			
Regular—University College	432		
Victoria College	224		
		656	
Occasional.—University College	128		
Victoria College	47		
		175	
Graduate.—University College	14		
Victoria College	19		
		33	
(2) Ph.D. Course.			
University	11		
University College	4		
Victoria College	3		
		18	
			882
Medicine.—Regular	407		
Occasional	67		
		474	
Applied Science.—Regular	288		
Occasional	2		
		290	
			1646

Candidates Examined.

Arts	912
Medicine	465
Law	13
Applied Science and Engineering	264
Pedagogy	6
Agriculture	10
Dentistry	114
Pharmacy	51
Music	50
Total	1885

Degrees Conferred.

LL.D. (Hon.)	14
Mus. Doc. (Hon.)	1
Ph.D.	2
M.A.	24
B.A.	130
M.D.	1
M.B.	55
LL.B.	6
D.D.S.	3
E.E.	1

B.A Sc.	15
B.S.A.	7
B.Paed.	2
Mus. Bac.	2
Phm.B.	51
Total	350

Among those who received the degree of LL.D. *honoris causa* was His Royal Highness the Duke of Cornwall and York, on whom this degree was conferred at a special convocation held on the 11th October, 1901.

New Courses of Study.

The number of students in Arts of the University who after graduation devote themselves to commercial pursuits or to journalism has been rapidly increasing for some years past. A constant and growing demand exists for young men for business posts who have enjoyed the advantages of a University education, and a number of graduates who have entered upon positions of this nature have met with remarkable success. In view of a feeling existing widely in business circles that a shorter course leading to a diploma instead of the usual degree in Arts would be of advantage to young men contemplating a business career, and especially in view of the representation made to this effect by the Toronto Board of Trade, the Senate instituted in June, 1901, a two years' course in Commercial Science leading to a diploma in the subject. This course came into operation at the beginning of the session 1901-1902. Amongst the subjects prescribed in the course is that of Commercial Law, for instruction in which there is no provision as yet in the University. For the next session Professor Young has voluntarily undertaken to lecture on the subject, and it is hoped that a permanent arrangement will be made with him to continue to give such instruction. Owing to the very special nature of the course in Commercial Science it would be extremely desirable that some officer of the University should be charged with the responsibility of superintending and advising the students who are proceeding to the diploma.

A new course leading to the degree of B.A., with honors has been instituted in the Department of Biological and Physical Science. Graduates in this department are allowed to enter the Faculty of Medicine with third year standing, so that it is now possible to obtain the degrees of B.A. and M.B. in six years.

In response to a wide demand on the part of the Associated Musicians of Ontario and others interested in musical education the Senate framed a curriculum for Local Examinations in Music, the first examination under which took place in June, 1902. These examinations include the Primary, Junior and Senior grades in the practical branches (piano, organ, and violin) and the Junior, Intermediate, and Senior grades in the Theory of Music.

A demand has also arisen for instruction in the subjects of Household Science and Forestry with the result that steps are now being taken towards meeting the needs of the public in respect of these important branches of Applied Science.

Research Work.

It is with great satisfaction that I note the growth of an appreciation within the University for the work of research, and the accomplishment during the year of a considerable amount of such work by members of the staff as well as by graduates and undergraduates. The movement in favor of research may be said to have begun with the establishment, on the suggestion of the undersigned, of the Fellowship System in 1882, which was intended to furnish

tutorial assistance and at the same time encourage research work amongst our graduates. The system, however, was only partially successful as regards research owing to the prominence given to the tutorial function of those holding fellowships.

Under the present circumstances of the University it appears to me extremely desirable that the original condition requiring a tutorial fellow to devote part of his time to research should be reimposed and that the proportion of time so devoted should not be less than one half.

A further step in the direction of encouraging research was taken, also on the motion of the undersigned, in 1883, when the Senate passed a resolution affirming the desirability of establishing the degree of Ph.D. No further action was, however, taken, owing to various causes, until 1897, when the statute establishing the degree in question was finally passed. An essential condition of this statute is that all candidates are required to engage in a research and to publish an approved thesis thereon before obtaining the degree, I may add that the chief credit for this step is due to Professor A. B. Macallum, whose persistent efforts on behalf of this statute were continued in the face of many obstacles until success was finally attained in 1897. Since then the degree of Ph.D. has been conferred on six candidates. Many graduates, however, have registered and engaged in the work of the course, the numbers registered during the last three years being, 14, 21, and 18, respectively.

A very gratifying feature of the growth of the research movement here is its extension to undergraduates. For some years it has been customary to employ fourth year students in researches, with the best results, both as regards the advancement of knowledge and the stimulating effect on the students so engaged.

For list of papers published during the year by members of the University, see Appendix.

In connection with the research movement mention should be made of the "University of Toronto Studies." This periodical was established in 1897 for the purpose of affording a medium for the publication of papers of original research by members of the Faculty and graduate students. Up to the end of the academic year twenty-three important papers of this nature had appeared. The periodical is also of value to the University owing to the fact that it serves as a medium of exchange for similar publications of other Universities.

It would be of advantage to the University if the funds at the disposal of the committee were adequate to the publication of a larger proportion of the papers offered, many of which now appear in American and foreign journals. For report of the committee on "University Studies", see Appendix.

Special University Lectures.

Apart from the regular instruction by members of the Faculty, special lectures were delivered during the year by Professor Hadamard, of the University of Paris, on "A comparison of the three concepts, the limiting ratio, the infinite series, and the definite integral, as serving as a basis for the infinitesimal analysis"; by J. C. Glashan, LL. D., of Ottawa, on "The Matrix Analysis of the Concomitants of Quantics"; and by M. Hugues Le Roux, of Paris, France, on "Le Roman contemporain, est-il une peinture exacte de la societe Francaise ?"

In addition to the above the usual course of Saturday popular lectures was delivered in January and February by Dr. W. H. Drummond, F. C. Wade, Esq., Professor A. P. Coleman, Rev. Professor Halliday Douglas, Rev. Provost Macklem, and Professor McGregor Young.

The Library.

From the report of the Librarian, which is appended, it will be seen that the total accumulation of books in the Library since the destruction of the former Library by fire in 1890 now amounts to 72,337 bound volumes and 22,500 pamphlets. The number of volumes added during the year was 4,201, of which 2,150 were presentations.

Amongst the donations to the Library during the year, special mention should be made of the donation of $10,000 by Professor and Mrs. Goldwin Smith to constitute a fund to be known as "The King Alfred Memorial Fund", the proceeds of which are to be devoted to the purchase of historical publications. Special mention should also be made of the bequest of the late Rev. Henry Scadding, D.D., under whose will a large part of his valuable library was donated to the University. This bequest also included a number of rare and valuable coins and medals.

The most pressing necessity of the Library at present is an extension of the building in which would be provided a reading-room for the members of the teaching staff and additional accommodation for administrative purposes.

The Museum.

On the erection of the Biological Building some years ago space was provided and reserved for a botanical museum. Up to the present time, however, no progress has been made towards the required equipment. The want of such a museum is now urgently felt and its establishment will be absolutely necessary in connection with the contemplated courses in Forestry.

The University Press.

Owing to the retirement from business of the former University printer, who served the University so faithfully in this respect for many years, it became necessary in the course of the year to make new arrangements. In view of the extent of this branch of the service, and especially in view of the confidential nature of a large portion of the work, it was deemed advisable to bring the supervision of the printing more immediately under the control of the University authorities. To this end the undersigned recommended the establishment of the University Press, and the Board of Trustees gave effect to this recommendation in February, 1902. Temporary accommodation has been secured in the old Wycliffe College, where a modern printing plant adequate to present needs has been installed. The operation of the printing plant has so far proved eminently successful.

The University Dining Hall.

The necessity has been felt for some years back of making provision for many students of the University who desired to lodge in the vicinity of the building, and to take their meals in a common hall. To meet this want an association was organized in 1900, to serve the convenience of students of all faculties in this respect, the dining hall attached to the former University College residence being utilized for this purpose. Large numbers have taken advantage of the accommodation thus afforded and the establishment of the hall has proved valuable as regards the material comfort as well as the social intercourse of the students.

The Faculty and Undergraduate Unions.

To further promote the social intercourse of Faculty and students these organizations were established in the west wing of the main building. The Faculty Union consisting of members of the various faculties of the University was inaugurated during the present year. It is furnished with reading

room and dining room, and is likely to prove useful in promoting social intercourse within the faculties. A similar purpose as regards the undergraduates is served by the Undergraduate Union, also located in the west wing, which was inaugurated in 1901 and is now in successful operation.

New Buildings.

Amongst the improvements of the year for the purpose of affording increased accommodation, mention should be made of the new Medical Building and the new Science Building. The Medical Building is intended for the accommodation of the students of the third and fourth years in the Faculty of Medicine, and also those of the Arts Department in Physiology. The erection of this building upon the University grounds will permit of the concentration of all the work of instruction in medicine, apart from Clinics, within the precincts of the University. Provision has been made for library, museum, large lecture rooms and laboratories. The most modern improvements in lighting, heating and ventilation are included in the plan. The total floor space will amount to 64,830 square feet, and the cost, exclusive of equipment, will be upwards of $125,000. It is expected that this building will be ready for occupation before the end of the session of 1902-3.

For some years past the space afforded by the buildings of the School of Practical Science has been quite inadequate to the increasing numbers in attendance, and in addition to this the Department of Mineralogy and Geology in the Arts Faculty has suffered much through the lack of suitable laboratories and lecture rooms. For the purpose of providing for the necessities of the two faculties of Arts and Applied Science in these respects a new building is in course of erection on the University grounds facing on College Street. The building is designed to accommodate the Departments of Applied Chemistry, Mineralogy, Geology, and Mining. The total floor space of this building is estimated at about 66,400 square feet, and the total cost at about $200,000.

In connection with Victoria College a residence for Women Students has been erected, facing on the North Drive between Bloor Street and Czar Street. It contains reception rooms, two large lecture or assembly rooms, dining room for eighty persons, gymnasium, dormitories and all necessary administrative and domestic offices, is heated by steam, lighted by electricity and provided with thorough ventilation. It will afford accommodation for sixty students. The cost of building and furnishing will be upwards of $60,000, the gift of the late Hart A. Massey and the Victoria Women's Residence Association.

Building Requirements.

In the report of the University Council for 1899-1900 attention was directed to the necessity for a new building for the purposes of the Department of Physics. It was then pointed out that both the laboratory and lecture room accommodation was entirely unsuitable, having been originally designed for other purposes. Since the date of that report the difficulty has been intensified through the accession of increasing numbers of students, especially those in the faculties of Applied Science and Medicine, all of whom are required to take Physics as part of their course. The erection of a new Physical Laboratory is in my opinion the most urgent need of the University at the present time, and cannot be longer delayed without seriously impairing the efficiency of this important department.

In the report referred to above, attention was similarly directed to the necessity for providing one or two lecture rooms in the main building similar

to those in the chemical and biological buildings for the accommodation of the larger classes in the various subjects. I desire also in this report to direct the attention of your Honor to this matter.

Other Requirements.

Since the destruction of the Convocation Hall by the fire of 1890, and the consequent remodelling of the main building, the University has been without any suitable rooms for the holding of commencement exercises or similar large meetings of a public character. With the numbers now in attendance a hall with accommodation for 2,000 persons would be no more than sufficient. The erection of such a hall would not only be of great convenience to the University but would also enable the public to attend academic functions, with the result of increased interest in the work of the institution.

The problem of providing for the board and lodging of the large numbers of students, both male and female, in attendance at the University has now become of urgent importance. The difficulty will be further increased in the near future by the fact of the transference of the teaching in Medicine in the third and fourth years from the School on Gerrard Street to the new Medical Building on the University grounds. The time has now come when the interests of the University will suffer if some general provision is not made for dealing with this matter. The lack of residential facilities will undoubtedly result in the loss of students to the University, and will thus be attended by a diminution in the scope of its usefulness, as well as indirectly by the diminution of its revenues. Many parents are deterred from sending their sons and daughters to a University where residential accommodation under supervision of the authorities is lacking. Such students will naturally be attracted to other institutions where these facilities are afforded. The difficulty existing has been met to some slight extent by the organizations known as Greek Letter Societies, several of which have maintained boarding houses successfully for some years. In some of the American Universities, notably the State University of Michigan, these societies have attained such development as to afford a practical solution of the residence problem, but it seems unlikely that a similar development will take place here. Under existing circumstances it would, in my opinion, be expedient to provide for the erection of a University Residence for the accommodation at the outset of at least 200 students. The establishment of such a residence would be a legitimate and prudent investment in the general interests of the University.

A large amount of attention is very properly given to athletic exercises by the students of the University, both in the gymnasium and on the field. These exercises have been undertaken hitherto without medical supervision. Experience has demonstrated the fact that the absence of such oversight is not unattended with danger. Injury is often done through the attempting of unsuitable exercises; students suffering from organic disabilities are, through ignorance of the fact, subject to grave danger or even to fatal consequences, while through over-training students physically sound may contract organic lesions which in the sequel may lead to serious or even fatal consequences. Further, it is found that many students suffer from mild types of deformity which are capable of correction under proper advice. These various considerations clearly indicate the desirability of appointing a medical director, who by his professional knowledge would be qualified to judge of the physical conditions of the students, and would be enabled to advise and direct them in the selection of the most appropriate form of physical training.

The above requirements have regard mainly to the wants of the Faculty of Arts. An examination of the financial statement of the Faculty of Applied Science and a consideration of the teaching staff and the attendance of students lead us to the conclusion that a much larger appropriation and several important additions to the staff are necessary in order that this important faculty of the University should keep pace with modern requirements.

Finances.

The following figures exhibit the total revenues and expenditures for the three Faculties of Arts (University and University College), Medicine and Applied Science and Engineering.

	Revenue.	Expenditure.
Arts	$149,089 28	$158,650 56
Medicine	37,094 21	37,094 21
Applied Science and Engineering	37,539 88	37,539 88

Details of these figures will be found in the Addendum.

The figures relating to Applied Science and Engineering are extracted mainly from the Public Accounts of the Province, the financial administration of the School of Practical Science being directly under Government control. The net cost of the School to the Province would appear to be about $17,480.

I have the honor to be, Sir,
Your obedient servant,

J. LOUDON, President.

Toronto, February 2nd, 1903.

ADDENDUM A—REPORT OF THE DEAN OF THE FACULTY OF ARTS.

University of Toronto, February 3rd, 1903.

James Loudon, Esq., LL.D., President of the University of Toronto :

Sir,—I beg to submit herewith a detailed list for the academic year 1901-2 of the personnel of the teaching staff in the Faculty of Arts of the University of Toronto, and also statistics as to the attendance of students in the various subjects taught by the members of the staff. As will be seen certain classes are taken advantage of by students of the Faculties of Medicine and Applied Science.

Staff, 1901-1902.

Faculty of Arts.

Physics :

Professor, James Loudon, M.A., LL.D
Demonstrator, W. J. Loudon, B.A.
Lecturer, C. A. Chant, M.A., Ph.D.
Demonstrator, J. C. McLennan, B.A., Ph.D.
Mechanical Assistant, J. S. Plaskett, B.A.
Assistant, G. R. Anderson, M.A.

Mathematics :

Professor, Alfred Baker, M.A.
Lecturer, A. T. DeLury, M.A.
Fellow, E. F. Burton, B.A.

Chemistry :

Professor, W. R. Lang, D.Sc.
Associate Professor of Physical Chemistry, W. L. Miller B.A., Ph.D.
Lecturer, F. B. Allan, M.A., Ph.D.
Lecturer, F. B. Kenrick, M.A., Ph. D.
Fellow, Miss C. C. Benson, B.A.
Lecture Assistant, C. M. Carson, B.A.

Biology :

Professor, R. Ramsay Wright, M.A., B.Sc., LL.D.
Lecturer, E. C. Jeffrey, B.A., Ph.D.
Instructor, W. H. Piersol, B.A., M.B.
Instructor in Zoology, B. A. Bensley, B.A., Ph.D.
Assistant in Botany, R. B. Thomson, B.A.
Assistant in Zoology, C. M. Fraser, B.A.
Assistant in Biology, S. H. Westman, B.A.

Physiology :

Professor, A. B. Macallum, M.A., M.B., Ph.D.
Demonstrator, F. H. Scott, B.A., Ph.D.

Geology :

Professor, A. P. Coleman, M.A., PhD.
Instructor, W. A. Parks, B.A., Ph.D.

Mineralogy and Petrography :

Professor, T. L. Walker, M.A., Ph.D.

Comparative Philology :

Professor, Maurice Hutton, M.A., LL.D.

History and Ethnology :

Professor, G. M. Wrong, M.A.

Political Economy and Constitutional History :

Professor, James Mavor.
Lecturer, S. M. Wickett, B.A., Ph.D.
Mackenzie Fellow in Political Science, H. P. Biggar, B.A.
Mackenzie Fellow in Political Science, F. L. Farewell, B.A.

Philosophy :

Professor of History of Philosophy, J. G. Hume, M.A., Ph.D.
Associate Professor, A. Kirschmann, Ph.D.
Lecturer, F. Tracy, B.A., Ph.D.
Instructor, A. H. Abbott, B.A.
Assistant, W. G. Smith, B.A.

Italian and Spanish :

Professor, W. H. Fraser, M.A.
Instructor in Spanish, P. Toews, M.A., Ph.D.
Instructor in Italian, E. J. Sacco.

Roman Law, General Jurisprudence and History of English Law :

Professor, A. H. F. Lefroy, M.A.

Constitutional and International Law :

Professor, J. McGregor Young, B.A.

The following table exhibits the numbers attending the honor lectures in University subjects. In no case do the numbers for pass include honor students :

	Pass.								
	Mathematics.	Physics.	Chemistry.	Biology.	Mineralogy and Geology.	Philosophy.	Logic.	Political Science.	History.
Arts—First Year	122	9	.....	103	.....	..	.....	.....	.....
Arts—Second Year	.....	.....	8	.....	31	117	91	5	77
Arts—Third Year	.. ...	2	....	.....	.....	....	.....	25	19
Arts—Fourth Year	32	.....	.....	.....	.....	23	.....	24	23
Medicine—First Year	...	118	117	.....	.....	.....	.....	.....	.....
Medicine—Second Year	.....	....	110	.....	.....	.....	.....	.....	.....
School of Practical Science	146	143	.....	.....	...	...	.....	.....	.....
Totals	300	272	235	103	31	140	91	54	119

	Honor.										
	Mathematics.	Physics.	Chemistry.	Biology.	Physiology.	Mineralogy and Geology.	Philosophy.	Political Science.	History.	Italian.	Spanish.	Phonetics.
Arts—First Year	34	76	58	29	....	....	...	..	...	38	20	49
Arts—Second Year	47	62	42	17	16	26	34	31	36	18	10	....
Arts—Third Year	14	22	20	11	....	15	17	31	63	16	3	....
Arts—Fourth Year	13	13	6	3	3	4	12	21	45	8	8	....
Arts—Graduates	....	....	....	4	....	....	1	7	....	..	....	....
Arts—Ph. D. Students	....	2	3	1	2	1	2	1	1	....	....	....
Medicine—First Year	....	....	....	123	131	....	....	....	....	....	....	....
Medicine—Second Year	....	....	....	107	114	...	....	....	....	....	....	....
School of Practical Science	81	....	....	....	....	....	....	....	....	....	....	....
Totals	189	175	129	295	266	46	66	91	145	80	41	49

The following table exhibits the numbers taking practical work in the laboratories :

Laboratories.	Physical.	Chemical.	Mineralogical.	Biological.	Physiological.	Psychological.
Arts—First Year	27	17	.....	29	.... ..	....
Arts—Second Year	28	42	26	17	16	.....
Arts—Third Year	15	18	15	11	.... ..	17
Arts—Fourth Year	7	6	4	3	3	10
Arts—Graduates	.....	.....	.....	4	.....	.....
Arts—Ph. D. Students	2	3	1	1	2	3
Medicine—First Year	.....	117	.....	123	.....	.....
Medicine—Second Year	.....	110	....	107	114	.....
School of Science—First Year	66	.....	.....	.....	.....	.....
School of Science—Second Year	77	.....	.....	.....	.....	.....
School of Science—Third Year	32	.....	.....	.....	.....	.....
Totals	254	313	46	295	135	30

I also subjoin statistics as to the courses selected by regular students proceeding to a degree in Arts in the University. The following table indicates whether the students in question are enrolled in University College or Victoria College :

	First Year.		Second Year.		Third Year.		Fourth Year	
	U.C.	V.C.	U.C.	V.C.	U.C.	V.C.	U.C.	V.C.
Classics	15	6	12	3	14	3	4	1
English and History	12	3	5	1	6	1	1	1
Modern Languages	31	9	21	4	17	10	19	4
Oriental Languages	..	..	2	2	2	1	3	..
History	..	..	1	..	..	..	..	..
Political Science	..	..	24	3	23	6	19	2
Philosophy	..	..	19	3	12	8	4	6
Mathematics and Physics	18	7	12	4	12	3	15	2
Physics and Chemistry	4	1	3	1	1	..	2	..
Chemistry and Mineralogy	6	3	6	2	4	2	4	..
Natural Science, Div I	17	4	9	8	9	..	3	..
Natural Science, Div. II	..	..	..	..	2	..	..	..
General Course	42	20	19	20	12	11	27	12

I am, Sir, yours faithfully,

(Sgd.) R. RAMSAY WRIGHT,
Dean of the Faculty of Arts.

ADDENDUM B—REPORT OF UNIVERSITY COLLEGE.

Principal, Maurice Hutton, M.A., LL.D.

Greek :

Professor, Maurice Hutton, M.A., LL.D.
Lecturer, Adam Carruthers, M.A.

Latin :

Professor, John Fletcher, M.A., LL.D.
Lecturer, W. S. Milner, M.A.
Lecturer, G. W. Johnston, B.A., Ph.D.

English :

Professor, W. J. Alexander, B.A., Ph.D.
Lecturer, D. R. Keys, M.A.

German :

Professor, W. H. VanderSmissen, M.A.
Lecturer, G. H. Needler, B.A., Ph.D.
Instructor, P. Toews, M.A., Ph.D.

French :

Professor, John Squair, B.A.
Lecturer, John Home Cameron, M.A.
Instructor, St. Elme de Champ, B. es L.

Oriental Literature :

Professor, J. F. McCurdy, Ph.D., LL.D.
Lecturer, R. G. Murison, M.A. Ph.D.

Ethics :

Professor, J. G. Hume, M.A., Ph.D.

The following table exhibits the number of students in attendance during the session :

First Year.....	Regular.....	148	
	Occasional.....	28	
			176
Second Year.....	Regular.....	137	
	Occasional.....	6	
			143
Third Year.....	Regular.....	115	
	Occasional.....	9	
			124
Fourth Year.....	Regular.....	101	
	Occasional.....	16	
			117
	Graduates.....	14	
	Ph.D. Students.....	4	
			578

The following tables exhibit the number of students in attendance upon lectures on subjects of the General and Honor Courses :

General Course.

——	Greek.	Latin.	Ancient History.	English.	German.	French.	Orientals.	Ethics.
First Year.....	36	148	99	159	45	61	26	.....
Second Year.....	44	94	.....	117	33	40	16	.....
Third Year.....	21	21	.....	111	6	10	3	44
Fourth Year.....	5	11	.....	64	13	15	7	.....
Totals.....	106	274	99	451	97	126	52	44

Honor Course.

——	Greek.	Latin	Ancient History.	English.	German.	French.	Orientals.	Ethics.
	17	21	21	71	48	62	.....	.....
First Year.....	16	16	39	45	25	25	3	.....
Second Year.....	16	15	16	34	18	20	2	11
Third Year.....	6	5	5	26	17	20	3	12
Fourth Year.....	.....	.....	.....	.....	.....	.....	3	1
Ph. D. Students.....								
Totals.....	55	57	81	176	108	127	11	24

ADDENDUM C.—VICTORIA UNIVERSITY.

Rev. N. Burwash, S.T.D., LL.D., F.R.S.C.,
President.

Rev. Alfred H. Reynar, M.A., LL.D.,
Dean of Faculty of Arts, William Gooderham Professor of English Literature.

A. R. Bain, M.A., LL.D.,
Nelles Professor of Ancient History.

Rev. E. I. Badgley, M.A., LL.D.,
Egerton Ryerson Professor of Mental and Moral Philosophy.

Rev. Francis Huston Wallace, M.A., D.D.
Dean of Faculty of Theology, Professor of Biblical Greek.

A. J. Bell, M.A., Ph.D. (Bresl.),
Macdonald Professor of the Latin Language and Literature.

Rev. John Burwash, M.A., D.Sc., LL.D.,
Professor of English Bible.

L. E. Horning, M.A., Ph.D. (Goettingen),
Professor of German and Old English.

Rev. J. F. McLaughlin, B.A., B.D.,
Professor of Oriental Languages and Literature.

J. C. Robertson, B.A.,
Professor of the Greek Language and Philosophy.

Pelham Edgar, Ph.D.,
Professor of the French Language and Literature.

A. L. Langford, M.A.,
Associate-Professor of the Greek Language and Literature.

A. E. Lang, M.A.,
Associate-Professor of the German Language and Literature.

E. Masson,
Instructor in French.

A. P. Misener, M.A.,
Lecturer in Oriental Languages and Literature.

The following table exhibits the number of Arts students ir attendance during the session :

First Year	Regular	66	
	Occasional	8	
			75
Second Year	Regular	59	
	Occasional	14	
			73
Third Year	Regular	45	
	Occasional	14	
			59
Fourth Year	Regular	32	
	Occasional	6	
			38
	Graduates	9	
	Ph. D. Students	3	
			257

ADDENDUM D.—FACULTY OF MEDICINE.

Dean of the Faculty, Prof. R. A. Reeve, M.D., LL.D.

Professores Emeriti :

James Thorburn, M.D.
M. H. Aikins, B.A., M.D.
W. W. Ogden, M.D.
J. H. Richardson, M.D.

Professor of Surgery and Clinical Surgery :

I. H Cameron, M.B., Tor., F.R.C.S., Eng.

Associate-Professor of Surgery and Clinical Surgery :

G. A. Peters, M.B., Tor., F.R.C.S., Eng.

Associate-Professors of Clinical Surgery :

A. Primrose, M.B., C.M., Edin.
B. Spencer, M.D., Tor.
L. M. Sweetnam, M.B., Tor.
H. A. Bruce, M.B., Tor., F.R.C.S., Eng.
W. Oldright, M.A., M.D., Tor.
F. N. G. Starr, M.B., Tor.

Demonstrators of Clinical Surgery :

C. L. Starr, M.B., Tor.
W. McKeown, B.A., M.B., Tor.

Professor and Director of the Anatomical Department :

A. Primrose, M.B., C.M., Edin.

Associate-Professor of Anatomy :

H. W. Aikins, B.A., M.B., Tor.

Demonstrator of Anatomy :

F. N. G. Starr, M.B., Tor.

Assistant Demonstrators of Anatomy :

C. L. Starr, M.B., Tor.
A. A. Small, M.B., Tor.
W. J. Wilson, M.B., Tor.
R. E. Hooper, B.A., M.B., Tor.
S. H. Westman, M.B., Tor.
W. J. Wilson, M.B., Tor.
D. McGillivray, M.B., Tor.
R. D. Rudolf, M.D., C.M., Edin., M.R.C.S., Lond.
W. H. Piersol, B.A., M.B., Tor.
A. C. Hendrick, B.A., M.B., Tor.
A. J. MacKenzie, B.A., M.B., LL.B., Tor.

Professor of Medicine and Clinical Medicine :

A. McPhedran, M.B., Tor.

Associate-Professors of Clinical Medicine :

W. P. Caven, M.B., Tor.
W. B. Thistle, M.D., Tor.

Lecturers in Medicine and Clinical Medicine :

R. J. Dwyer, M.B., Tor.
R. D. Rudolf, M.D., C.M., Edin., M.R.C.S., Lond.

Lecturer in Clinical Medicine :

G. Boyd, B.A., M.B., Tor.

Demonstrators in Clinical Medicine :

A. R. Gordon, M.B., Tor.
G. Chambers, B.A., M.B., Tor.

Professor of Pathology and Bacteriology :

J. J. MacKenzie, B.A., M.B., Tor.

Associate-Professor of Pathology and Bacteriology :

J. A. Amyot, M.B., Tor.

Laboratory Assistant in Bacteriology :

W. Goldie, M.B., Tor.

Assistant Demonstrators of Pathology :

G. Silverthorn, M.B., Tor.
W. J. Wagner, M.B., Tor.

Professor of Materia Medica and Therapeutics :

James M. MacCallum, B.A., M.D., Tor.

Associate-Professor of Pharmacology and Therapeutics :

C. F. Heebner, Phm.B., Tor.

Professor of Gynaecology :

U. Ogden, M.D., Tor.

Professor of Obstetrics :

A. H. Wright, B.A., M.D., Tor.

Associate-Professor of Obstetrics and Pediatrics :

H. T. Machell, M.D., Tor.

Associate-Professor of Gynaecology :

J. F. W. Ross, M.B., Tor.

Demonstrator of Obstetrics :

K. C. McIlwraith, M.B., Tor.

Professor of Ophthalmology and Otology :

R. A. Reeve, B.A., M.D., LL.D., Tor.

Associate Professor of Ophthalmology and Otology :

G. H. Burnham, M.D., Tor., F.R.C.S., Edin.

Professor of Laryngology and Rhinology

G. R. McDonagh, M.D., Tor.

Professor of Hygiene :

W. Oldright, M.A., M.D., Tor.

Professor of Toxicology :

W. H. Ellis, M.A., M.B., Tor.

Professor of Medical Jurisprudence :
B. Spencer, M.D., Tor.

Lecturer on Medical Jurisprudence :
Hon. David Mills, LL.B., K.C.

Extra Mural Professors of Mental Diseases :
Daniel Clark, M.D., Tor.
N. H. Beemer, M.B., Tor.

Professor of Physics :
James Loudon, M.A., LL.D., Tor.

Lecturer on Physics :
C. A. Chant, M.A., Ph.D., Tor.

Professor of Chemistry :
W. R. Lang, D.Sc., Glasg.

Lecturers in Chemistry :
F. B. Kenrick, M.A., Tor., Ph.D., Leipzig.
F. B. Allan, M.A., Ph.D., Tor.

Associate-Professor of Physical Chemistry :
W. L. Miller, M.A., Tor., Ph.D., Munich.

Professor of Biology :
R. Ramsay Wright, M.A., B.Sc., Edin., LL.D., Tor.

Assistant Demonstrator in Biology :
R. R. Bensley, B.A., M.B., Tor.

Professor of Physiology :
A. B. Macallum, M.A., M.B., Tor., Ph.D., Johns Hopkins.

The following table exhibits the number of students registered as in attendance upon the lectures given by the staff of the Faculty of Medicine :

Students in the fifth year (Post Graduate)	2
Students in the fourth year	58
Students in the third year	99
Students in the second year	117
Students in the first year	131
Occasional students	67
Total	474

ADDENDUM E—APPLIED SCIENCE AND ENGINEERING.

Dean of the Faculty, Principal Galbraith, M.A., LL.D.

Chemistry :
Professor, W. H. Ellis, M.A., M.B.
Demonstrator, J. W. Bain, B.A.Sc.
Fellow, E. G. R. Ardagh, B.A.Sc.
Lecture Assistant, J. A. DeCew, Grad. S.P.S.

Mineralogy and Geology, Mining and Metallurgy :
Professor, A. P. Coleman, Ph.D.
Lecturer, G. R. Mickle, B.A.
Fellow, A. H. A. Robinson, B.A.Sc.

Applied Mechanics :

Professor, J. Galbraith, M.A.
Lecturer, J. A. Duff, B.A.
Lecturer, R. W. Angus, B.A.Sc.
Demonstrator, W. Monds, B.A.Sc.
Fellow, A. H. Harkness, B.A.Sc.

Architecture and Drawing :

Professor, C. H. C. Wright, B.A.Sc.
Fellow, J. T. M. Burnside, B.A.Sc.
Fellow, J. A. Craig, B.A.Sc.

Surveying and Geodesy :

Professor, L. B. Stewart, D.T.S.
Demonstrator, A. T. Laing, B.A.Sc.

Electricity :

Professor, T. R. Rosebrugh, M.A.
Fellow, W. G. Chace, Grad. S.P.S.

Mathematics :

Professor, Alfred Baker, M.A.
Lecturer, A. T. DeLury, M.A.
Fellow, E. F. Burton, B.A.

Physics :

Professor, James Loudon, M.A., LL.D.
Demonstrator, W. J. Loudon, B.A.
Lecturer, C. A. Chant, M.A., Ph.D.
Demonstrator, J. C. McLennan, B.A., Ph.D.
Mechanical Assistant, J. S. Plaskett, B.A.
Lecture Assistant, G. R. Anderson, M.A.

Biology :

Professor, R. Ramsay Wright, M.A., B.Sc., LL.D.

Number of students by Years :

First year	147
Second year	81
Third year	45
Fourth year	15
Occasional	2
	290

Number of students by departments :

1. Civil Engineers	73
2. Mining Engineers	69
3. Mechanical and Electrical Engineers	139
4. Architecture	2
5. Applied Chemistry	7
	290

ADDENDUM F—THE LIBRARY.

The Librarian of the University of Toronto begs to submit his annual report for the year ending June 30th, 1902 :

1. The number of bound volumes added to the Library during the year was 4,201, of which 2,150 were presentations, making the total contents of the Library 72,337 volumes. The number of pamphlets added during the year

was 1,484. The total number of pamphlets, of which no accurate account was kept until the last few years, now exceeds 22,500.

2. During the Session 1901-2 the average daily attendance of readers is estimated at 79. The largest number counted was 146, in the morning of February 19th, and 140 and over were also counted on three other occasions during March and April. The statistics of the use of books by students are as follows, comparisons being made with similar statistics for the previous year :

	1900-1.	1901-2.
Average number of books	762	766
Average number of books taken out by students for the night, per week	332	320
Total number of books taken out by students for periods longer than one night	3482	3687

Under the arrangement for giving students access to the stack-room on recommendation of a professor, 27 persons were admitted during the year for various periods. The similar figures for 1900-1 and 1899-1900 are 26 and 19 respectively.

3. The number of institutions and learned societies on the exchange list of the Library, to which the University of Toronto Studies and the University Calendar and Examination Papers are sent, is now 410. The Library receives 170 periodicals and serial publications in return, besides University Calendars and many occasional publications from institutions included in the above total of 410 to which the University publications are sent.

4. The chief necessity of the Library noted in the report for last year was a cataloguer. The Trustees had not been able to make an appropriation for the salary of a cataloguer up to the close of the year covered by this report, but an allowance for the purpose has been included in the estimates for the year 1902-3.

5. The absence of reading-room accommodation for Professors and other members of the Faculties, which has always been a defect in the Library building, is increasingly felt, owing to the continual additions that are made to the teaching body. Hitherto the room used for storing the current numbers of periodicals has done duty as a reading-room for the professors. It is also, however, the only available working-room for one of the assistants, and as the tables in that room are frequently covered either with unbound volumes of periodicals in course of preparation for sending to the binder, or with volumes that have come up from the binder and are in process of being checked and verified, it is obvious that there is no proper accommodation there for members of the Faculties desirous of working in close proximity to the collection of books. For the cataloguer, when appointed, a space will have to be found in the receiving room for new books, or in the Professors' reading-room, which, as just mentioned, is already used for accommodation of books bound or to be bound. It is probable that the cataloguer will be shifted from one to the other room according to the exigencies of the situation, and may even have to do her work occasionally among the students in the reading-room. It need hardly be pointed out that such paucity of office accommodation is unknown in any other modern library.

It is respectfully urged, therefore, that it is a most pressing need of the University to have an addition built to the Library building to provide a proper reading-room for members of the Faculties and additional accommodation for administrative purposes.

6. The following is a list of some notable books included in the Scadding bequest added to the shelves during the year 1901-2 :

Incunabula :

Herp. Speculum aureum decem praeceptorum Dei. Mainz, Schoeffer, 1474.
Bonaventure, Speculum beatae Mariae virginis. Augsburg, Sorg., 1477.
Peter Lombard, Libri sententiarum, 1468.
Joh. Gritsch, Quadragesimale, 1479.
Missale Babenbergense. Bamberg : Pfeyl, 1499.
Tortellius, Commentaria grammatica. Venice: Tacuinus, 1495.
Nestor, Vocabulista. Venice : Pinzius, 1496.
Perottus, Rudimenta grammatices. Brescia, ca 1475.
Pomponius Laetus, Romanae Historiae Compendium. Venice, 1499.
Dominicus de Sto Geminiano, Lectura prima super sexto libro decretalium. Venice: Rubeis, 1476.
Jacopo de Voragine, Lombardica historia (Golden Legend). Strassburg, 1490.

Other early printed or rare editions:

Chaucer, Works, ed. Speght, 1602.
Pope, Works, 1st collected edition of his miscellaneous poems, 1717.
Milton, Paradise Lost, 3rd ed., 1678.
Sidney (Sir P.), Countesse of Pembroke's Arcadia, 8th ed., 1633.
Spenser, Faerie Queen and other works, 1st folio ed., 1611.
Speculum intellectuale felicitatis humane, etc. Nuremberg Pinder, 1510.
Virgil, Folio ed., Glasgow : Foulis, 1778.
Gerard's Herbal, enlarged by Thos. Johnson, Lond. Adam Islin, 1633.
Erasmus, Hyperaspites, 1st edition, 1526.
Homer, Iliad and Odyssey, 2 vols. Aldus, 1517.

All of which is respectfully reported.

(Sgd.) H. H. LANGTON, Librarian.

ADDENDUM G—BIOLOGICAL MUSEUM.

A list of donations to the Museum during the academic year 1901-2 will be found at page 31 of the Appendix to the Calendar for 1902-3. The most important of these were :

1. A valuable series of specimens illustrative of the Fauna of Borneo —chiefly Mamalian skins and skeletons—from Charles Hose, Esq. Resident, Baram District, Sarawak.

2. Gifts of $125 and $25 respectively from Joseph Kilgour, Esq., and Frederic Nichols, Esq., which made possible the purchase of interesting reptiles from the Galapagos Islands.

Considerable progress has been made with the cataloguing and arrangement of the collections. During the last two years a graduate has been employed in the preparation of a card catalogue, a task which has not hitherto been attempted. The small sum annually appropriated for this purpose is not only more than repaid to the University by the increased usefulness of its collections, but an opportunity is also afforded for the study of systematic Zoology to a student desirous of specializing in this direction. Already upwards of 6,000 cards have been entered ; of these 1,000 refer to 357 species and 217 genera of Mammals ; 4,000 to 1,400 species, and 750 genera of Birds, and nearly 1,000 to 320 species and 150 genera of Reptiles. Four hundred specimens, chiefly duplicates of Invertebrates from the Challenger Collection, secured through the British Museum of Natural History, have also been catalogued. It is hoped that the remainder of the Ver-

tebrates may be completed during the present academic year, and that a compendious description of the most interesting features of the Collection may thereafter be published in the University Studies.

The proper arrangement of the large series of skins presented by the Trustees of the British Museum of Natural History, and the inadequacy of the show-cases to display without crowding mounted specimens of Birds and Mammals in our possession, render necessary a further provision of show-cases. I beg to recommend, therefore, that combined storage and show-cases be provided for the east walls of the ground floor, at a cost of $1,500.

In view of the circumstance that the room now occupied by the Ferrier Collection of Minerals, but originally intended for the Botanical side of the Biological Museum, will be vacated in the near future, I beg to suggest that the Lecturer in Botany be invited in association with myself to prepare a report on the necessary fittings and equipment.

R. RAMSAY WRIGHT,
Curator.

ADDENDUM H—PATHOLOGICAL MUSEUM.

The University of Toronto Medical Faculty Museum of Pathology contains at present about 800 specimens, and is being continually added to from month to month.

The majority of the specimens have been preserved in alcohol, and have the faults of alcoholic specimens, but during the past year a modification of the Raiserling Method of preparation has been adopted, and it is intended in time to eliminate the older alcoholic specimens and substitute for them those in which the natural colours are as far as possible preserved.

Most of the specimens are still preserved in cylindrical jars, but for these the rectangular jars are gradually being substituted.

A decimal method of classification has been adopted, which will enable the Curator to add specimens without altering the numbering of those already on the shelves.

(Signed) J. J. MACKENZIE,
Curator.

ADDENDUM J—CHEMICAL LABORATORY.

To James Loudon, Esq., LL.D.,
President of the University of Toronto ;

Sir,—I have the honor to inform you that, through the kindness of friends interested in the chemical manufactures of Great Britain, an extensive collection of specimens of pure chemicals, refined metals and by-products, have been presented to the University. These specimens, amounting to more than five hundred in number, have been properly arranged in the Chemical Laboratory, and are now in daily use as lecture illustrations.

Particulars are contained in the following list :

Messrs. Tyrer and Co., London : Compounds of mercury, tin, bismuth, phosphorus, copper, zinc, and aluminum, along with specimens of the pure metals.

Manchester Alum Works : Large crystals of the alums, and of the native Bauxites from which they are made.

Sir James King, Bart., of Campsie : Two large srystals of yellow and red prussite of potash, each standing about a foot high.

Mr. George Beilby, of the Oakbank Oil Company : Specimens of the bituminous shales used first by the late Dr. James Young, for the production of naptha, lighting and lubricating oils, and solid paraffin waxes.

Dr. Ludwig Mond, F.R.S.: Specimens of soda crystals and other alkali products from the famous Brunner Mond Works.

The United Alkali Company : Alkali and bleaching products, with specimens of "black ash," "Weldon's mud," and of the materials used at the various stages in the production of soda and of bleaching powder.

The Glasgow Lead and Color Works : Series of Mineral pigments and several "wickets" of lead, before and after their conversion into white lead.

Lord Overtoun : Complete series of compounds of chromium, including a magnificent rose or crystal of bichromate of potash, in height about a foot and proportionately broad. This crystal was specially grown for me, and took about a year to reach its present size.

Messrs. Broadfoot & Sons : A selection of brass and gun-metal alloys, showing fractures with the breaking strains, and analyses attached.

The British Dyewood and Chemical Company : Natural dyewoods and extracts.

The Dominion Dyewood and Chemical Company (per Mr. M. J. Taylor) : A collection of coal tar colors manufactured at the Elberfeld Works.

The University is indebted to Messrs. Allan, of Montreal, and to the Grand Trunk Railway for free transportation of the specimens.

I trust to be able to secure further additions to the collection year by year.

I have the honor to be, Sir,
Your obedient servant,
(Signed.) W. R. LANG,
Curator.

February 2nd, 1903.

ADDENDUM K—"UNIVERSITY OF TORONTO STUDIES."

University of Toronto Library, January 8th, 1903.

To the President of the University of Toronto :

Sir,—I beg to submit the following report of "University of Toronto Studies" for the year 1902 :

1. The publication of University of Toronto Studies was commenced in the year 1898 by the aid of a Legislative grant of $500, subsequently increased to $600 per annum. An annual sum is also contributed by the University Library as an equivalent for the use of the Studies as Library exchanges.

2. The following list of the published Studies, arranged by years, will show the considerable dimensions to which the Studies have attained on the small sum allowed annually :

In 1898 :

History—Review of Historical Publications relating to Canada. Vol. 2, edited by Professor Wrong and H. H. Langton.

Economics—Public Debts in Canada, by J. Roy Perry.

Psychology—Spatial Threshold of Colour, by W. B. Lane and others.

Biology—Gametophyte of Botrychium Virginianum, by E. C. Jeffrey. (Reprint from Canadian Institute Transactions.)

In 1899 :

History—Review of Historical Publications relating to Canada. Vol. 3, edited by Professor Wrong and H. H. Langton.

Psychology—Contribution to the Psychology of Time, by Messrs. Shaw and Wrinch.

Psychology—Experiments on Time Relations of Poetical Metres, by Messrs. Hurst and McKay.

In 1900 :

History—Review of Historical Publications, Vol. 4, edited by Messrs. Wrong and Langton.

History—Preliminary Stages of the Peace of Amiens, by H. M. Bowman.

Psychology—Conceptions and Laws in Aesthetics, by Prof. Kirschmann; Experiments in Colours (2 papers), by Miss Baker and W. J. Dobbie.

Geology—The Huronian of the Moose River Basin, by W. A. Parks.

Physiology—Structure, etc., of Nerve-Cells, by F. H. Scott. (reprint from Canadian Institute Transactions.)

Physiology—On the Cytology of Non-Nucleated Organisms, by Professor Macallum (reprint from Canadian Institute Transactions.)

Anatomy—Anatomy of the Orang-Outang, by Professor Primrose, (reprint from the Canadian Institute Transactions).

In 1901 :

History—Review of Historical Publications, Vol. 5, edited by Messrs. Wrong and Langton.

History—Early Trading Companies of New France, by H. P. Biggar.

Physiology—Observations on Blood Pressure, by R. D. Rudolf.

In 1902 :

History and Economics—Review of Historical Publications, Vol. 6, edited by Messrs. Wrong and Langton.

History and Economics—City Government in Canada (3 papers), by Messrs. Wickett and Lighthall.

Psychology—Conception and Classification of Art from a psychological standpoint, by Professor Kulpe (University of Wuerzburg); Experiments on Colour and Light (3 papers), by Miss Baker and Messrs. Wilson and Abbott.

Biology—On the Identification of Meckelian and Mylohyoid Grooves, etc., by B. A. Bensley.

Biology—Anatomy of the Osmundaceae, by J. H. Faull, (reprint from Botanical Gazette.)

Geology—Michipicoten Iron Ranges, by Professor Coleman and A. B. Wilmott.

3. The increase last year in the number of subjects and departments represented points to the more general interest in the publication taken by the members of the Faculties. Papers are now under consideration in subjects such as Philology and Philosophy, in which no studies have yet been issued. With the growth of the recognition of the University of Toronto Studies as a vehicle of publication by members of the University the difficulty of making the present annual grant suffice is becoming greater. Many papers by members of the Faculties are now printed in American and English scientific journals which would increase the reputation of the University as well as of their authors if they could be issued as University of Toronto Studies. The publication of some valuable works has already been postponed for want of funds, and others on early Canadian History embodying the results of researches in Europe are known to be in preparation, which it will be impossible to accept unless the existing grant is increased. Without any departure from the present high standard of the papers accepted, an annual grant of $1,000 would be no more than sufficient to maintain the Studies on the lines originally projected, viz., as a publication in the interests of scientific research especially as carried on in the University of Toronto.

All of which is respectfully submitted,

H. H. LANGTON, General Editor.

ADDENDUM L—MARINE BIOLOGICAL STATION OF CANADA.

To the President of the University of Toronto :

Sir,—I beg to submit the following memordum with regard to work at the Biological Stations at Canso and the Georigan Bay.

Canso Station.

Since this station was established four years ago, the members of the Biological Staff of the University have co-operated heartily in its work, and the University has made it possible for some of its younger graduates to associate themselves therewith by making an annual appropriation to cover their travelling expenses to the distant parts of the Dominion (St. Andrews, N.B., Canso. N.S.) where it has been situated. The report of the first two seasons' work contains contributions from various members of the University, and the forthcoming report dealing with the last two seasons during which the undersigned has acted as Assistant Director, will indicate continued activity.

Georgian Bay Station.

The Department of Marine and Fisheries, taking advantage of the existence of a summer colony from the University on the Georgian Bay, has begun investigations on the Biology of the Great Lakes, in which members of the University have been active.

I have the honor to be, Sir,
Yours faithfully,
(Signed) R. RAMSAY WRIGHT.

ADDENDUM M.—FINANCIAL STATEMENTS.

FACULTY OF ARTS.

Receipts—1901–1902.

Interest on purchase moneys	2,180 59
" loans	16,072 37
" debentures	11,738 23
" bank balances (including interest on advances to Medical Faculty)	717 05
Rentals, University Park Lands	12,697 69
" business properties	3,821 40
" School of Science site	925 00
" Biological Building (Medical Faculty)	1,900 00
" Board of Health	200 00
" City of Toronto (park)	6,000 00
" Sundry earnings	2,590 51
University Fees (including Library and Gymnasium)	49,877 43
Legislative Grant	7,000 00
Wild lands sales	2,874 87
	$118,595 14
Reserve for interest on Retirement Fund, Scolarship and other Trust Funds	8,080 69

Expenditure, 1901–1902.

Summary.

1. Salaries and Pensions—	
(*a*) Salaries	85,148 00
(*b*) Pensions	2,800 00
2. Bursar's Office	749 66
3. Registrar's Office	2,023 94
4. Vice-Chancellor's Office	700 00

5.	President's Office	326 25
6.	Law Costs	1,495 00
7.	General Incidentals	784 75
8.	Insurance	1,800 00
9.	Telephones	217 50
10.	Convocation Expenses	800 52
11.	Examinations	5,225 00
12.	Library	2,335 07
13.	Grounds	2,748 00
14.	Main Building	3,999 25
15.	Biological Department—	
	(*a*) Maintenance of Structure	2,547 97
	(*b*) Maintenance of Department	2,584 62
16.	Physiological Department	700 00
17.	Psychological Department	150 00
18.	Mathematics	73 50
19	Political Science	25 00
20	History	16 15
21.	Italian and Spanish	20 00
22.	Advertising (University)	399 79
23.	Incidentals (University)	174 52
24.	Classics	5 75
25.	English	100 00
26.	French	40 00
27.	German	9 84
28.	Oriental Literature	25 00
29.	Stationery (University College)	75 00
30.	Printing "	75 00
31.	Advertising "	99 70
32.	Incidentals "	49 81
33.	Gymnasium and Student's Union	1,125 26
34.	Senate Elections	329 00
35.	Royal Society of Canada	100 00
36.	University Press	246 27
	Total Expenditure (exclusive of Departments sustained by Government)	$120,125 12

Details of Expenditure.

Salaries.

1.	Bursar's Office :	
	Bursar	2,000 00
	Accountant	1,200 00
	Fees Clerk	600 00
		3,800 00
2.	Library :	
	Librarian	2,000 00
	First Assistant	500 00
	Second Assistant	487 50
	Third Assistant	162 50
	Two Delivery Clerks	400 00
	Caretaker	487 50
		4,037 50
3.	University of Toronto, general :	
	President (also paid as Professor of Physics)	1,800 00
	Registrar	1,500 00
	Registrar's Stenographer	321 50
	Bedell (with free house)	600 00
	Architect	100 00
	Janitor	450 00
	Gardener	440 00
	Engineer (with rooms and fuel)	576 00
	Fireman (salary at $35 per month for eight months)	280 00
	Carpenter	620 00

Cleaners	480 00
Messenger	142 00
	7,309 50
4. Pensions :	
E. J. Chapman	1 800 00
J. M. Hirschfelder	1,000 00
	2,800,00
5. Teaching Staff, etc., University of Toronto :	
(*a*) Modern History and Ethnology :	
Professor	3,175 00
(*b*) Political Science :	
Professor	3,200 00
Professor of Constitutional and International Law	750 00
Professor of Roman Law, Jurisprudence and History of English Law	750 00
Lecturer (sessional)	1,000 00
	5,700 00
(*c*) Mathematics :	
Professor	3,200 00
Associate Professor	1,800 00
Fellow	500 00
	5,500 00
(*d*) Biology :	
Professor	3,200 00
Lecturer in Zoology and Assistant Curator Museum (one term in 1901-2, new appointment)	500 00
Lecturer in Biology and Histology (Laboratory only in 1901-2, new appointment)	450 00
Demonstrator	325 00
Class Assistant in Histology (sessional)	150 00
Lecture and Laboratory Assistant (sessional)	250 00
Class Assistants (6 at $50) (sessional)	300 00
Sub-Curator Museum	750 00
Attendant and Caretaker	500 00
Laboratory and Museum Attendant	150 00
	6,575 00
Sub-department of Botany :	
Lecturer	1,800 00
Instructor (sessional)	250 00
	8,625 00
(*e*) Physiology :	
Professor	2,500 00
Demonstrator (sessional)	600 00
	3,100 00
(*f*) Italian and Spanish :	
Professor	2,500 00
Instructor in Italian (sessional)	400 00
Instructor in Spanish (sessional)	50 00
	2,950 00
(*g*) Philosophy :	
Associate Professor	1,900 00
Lecturer	1,475 00
Lecturer (sessional)	1,000 00
Laboratory Assistant (sessional)	200 00
	4 575 00
6 Teaching Staff, University College :	
(*a*) Ethics, Professor	3,200 00

(*b*) Greek :	
Professor	3,200 00
Lecturer	1,800 00
	5,000 00
(*c*) Latin :	
Professor	3,075 00
Lecturer	1,800 00
Lecturer	1,475 00
	6,350 00
(*d*) Oriental Literature :	
Professor	3,200 00
Lecturer	1,475 00
	4,675 00
(*e*) English :	
Professor	3,200 00
Lecturer	1,800 00
	5,000 00
(*f*) French :	
Professor	2,500 00
Lecturer	1,800 00
Instructor	750 00
	5,050 00
(*g*) German :	
Professor	2,500 00
Lecturer	1,800 00
Instructor	1,000 00
	5,300 00
7. University College, general :	
Principal (9 months)	225 00
8. Gymnasium :	
Secretary	100 00
Instructor	500 00
Caretaker	576 00
	$1,576 00

Expenses.

2. Bursar's office :	
Stationery, postage, printing and incidentals	449 66
Auditor	300 00
	749 66
3. Registrar's office :	
Stationery and office supplies	261 70
Postage	340 00
Printing, other than Calendar	270 88
Printing Calendar and Curricula	1,151 36
	2,023 94
4. Vice-Chancellor's office :	
Honorarium	400 00
Expense indemnity	300 00
	700 00
5. President's office :	
Secretarial allowance	200 00
Postage and incidentals	35 60
Travelling expenses	91 65
	326 25
6. Law costs	1,495 00
7. General incidentals, including commissions on real estate transactions	784 75

8. Insurance		1,800 00
9. Telephones		217 50
10. Convocation expenses		800 52
11. Examinations :		
(*a*) Remuneration to examiners :		
Arts		677 45
Medicine		1,386 35
Law		120 00
Engineering and Applied Science		200 00
Dentistry		323 00
Agriculture		277 28
Music		87 05
Pharmacy		430 86
Pedagogy		120 00
Matriculation		95 00
		3,716 89
(*b*) Stationery and supplies		547 61
(*c*) Cost of printing examination papers and class lists		1,265 50
		5,530 00
Less Government share for departments of Chemistry and Physics		305 00
		5,225 00
12. Library :		
(*a*) Maintenance :		
Fuel		334 56
Water		16 98
Cleaning		175 00
Repairs and Incidentals		108 53
		635 07
(*b*) Customary grant for books		1,700 00
(Further appropriation from Library Book Funds, $3,868.92)		
13. Grounds :		
Labour, tools, gravel, etc		2,748 00
14. Main Building :		
Repairs, (including carpentry and plumbing,) and sundries		1,921 29
Dynamo		1,141 52
Fuel		2,098 98
Water		243 16
Gas and Electric Light		319 50
		5,724 25
Less Government share for Department of Physics		1,725 00
		3,999 25
15. Biological Building :		
(*a*) Maintenance of Structure:		
Fuel		888 56
Gas and electric light		208 34
Water		92 07
House furnishings and cleaning materials		195 94
Repairs, including carpentry and plumbing		578 50
Additional attendance and cleaning assistance		253 75
Extraordinary expenditure		430 81
		2,647 97
Less Government share for Department of Mineralogy and Geology		100 00
		2,547 97
(*b*) Biological Department :		
Laboratory and Lecture Room supplies		351 74
Museum supplies		617 78
Marine and Lake laboratories		171 90

	Students' laboratory supplies	744 75
	Assistance in preparation of catalogue	225 00
	New microscopes	473 45
		2,584 62
16.	Physiological Department:	
	Maintenance, apparatus, etc	700 00
	Students' laboratory supplies	
		700 00
17.	Psychological Department:	
	Maintenance	150 00
18.	Mathematics	73 50
19.	Political Science:	
	Class room supplies	25 00
20.	History:	
	Class room supplies	16 15
21.	Italian and Spanish:	
	Class room supplies	20 00
22.	Advertising	399 79
23.	Incidentals	174 52

University College Departments.

24.	Classics:	
	Greek class room supplies	.....
	Latin class room supplies	5 75
25.	English:	
	Class room supplies and provision for reading essays	100 00
26.	French:	
	Class room supplies	40 00
27.	German:	
	Class room supplies	9 84
28.	Oriental Literature:	
	Class room supplies	25 00
29.	Stationery	75 00
30.	Printing	75 00
31.	Advertising	99 70
32.	Incidentals	49 81
33.	Gymnasium and Students' Union:	
	Fuel	366 99
	Water	131 88
	Gas	89 40
	Cleaning	80 65
	Repairs and incidentals	117 51
	Apparatus, labor, etc., (including new lockers in 1901-2)	338 83
		1,125 26
34.	Senate elections:	
	Allowance to scrutineers and assistants	129 50
	Postage, printing and incidentals	199 50
		329 00
35.	Royal Society of Canada, towards expenses of meeting	100 00
36.	University Press:	
	Portion of $2,000 remaining to be provided for cost of presses and type.	246 27
	Additions to type and equipment	.....
	Incidental expenses	.....
		246 27

DEPARTMENTS MAINTAINED BY GOVERNMENT.

Summary.

	Chemistry:	
	Salaries	8,204 75
	Maintenance	3,585 00

2. Physics :	
Salaries	10,350 00
Maintenance	3,525 00
3. Mineralogy and Geology :	
Salaries	3,575 00
Maintenance	891 79
4. Examination expenses :	
Share of Chemistry and Physics	305 00
	30,426 54

DETAILS.

1. Chemistry :	
(*a*) Salaries :	
Professor	2,600 00
Associate Professor	1,900 00
Lecturer	1,075 00
Lecturer	1,075 00
Assistant (sessional)	500 00
Assistant (sessional)	400 00
Attendant	504 00
Cleaner	150 75
	8,204 75
(*b*) Maintenance of Building :	
Fuel	564 40
Gas and electric light	183 04
Water	138 17
Cleaning	110 00
Repairs and incidentals	272 61
Fitting up physical chemical laboratory	1,316 78
	2,585 00
(*c*) Maintenance of department :	
Chemicals and glassware	1,000 00
	1,000 00
2. Physics :	
(*a*) Salaries :	
Professor	3,200 00
Associate Professor	1,800 00
Associate Professor	1,800 00
Lecturer	1,800 00
Mechanical assistant	1,000 00
Laboratory assistant (sessional)	650 00
Lecture assistant (sessional)	100 00
	10,350 00
(*b*) Maintenance of department :	
Supplies, apparatus, etc	1,800 00
Proportions of fuel, water, light, cleaning, repairs, and incidentals, Main Building account	1,725 00
	3,525 00
3. Mineralogy and Geology :	
(*a*) Salaries :	
Professor Geology	500 00
Professor Mineralogy (9 months in 1901-2)	1,875 00
Lecturer	1,000 00
Attendant	200 00
	3,575 00
(*b*) Maintenance of Department :	
Apparatus for Mineralogy	.....
Apparatus for Geology	.....
Supplies and sundries, including students' supplies	791,79
Proportion of fuel, light, water, cleaning, repairs, and incidentals, Biological Building account	100 00
	891 79

4. Departments of Chemistry and Physics :
Share of examination expenses :

Chemistry		180 00
Physics		125 00
		305 00

Medical Faculty.

Income.

First year	$12,051 00	
Less Arts portion	1,610 00	
		$10,441 00
Second year	$10,950 00	
Less Arts portion	1,590 00	
		9,360 00
Third year		9,417 00
Fourth year		5,530 00
Miscellaneous fees		1,090 00
Registration fees		645 00
Psychological fees (collected for Dr. Daniel Clark)		265 00
Interest on bank account		346 21
		$37,094 21

Expenditures.

Salaries		$24,615 73
Rents of :		
Biological building	$1,900 00	
Gerrard street building	1,000 00	
		2,900 00
Interest on University advance 4% on $3,200	$128 00	
Repayment of part of advance	800 00	
		928 00
Working expenses		8,650 48
		$37,094 21

Professors.

Dr. A. Primrose	Anatomy	$1,500 00	
Dr. J. J. Mackenzie	Pathology	1,500 00	
I. H. Cameron	Surgery and Clinical Surgery	1,101 00	
Dr. A. McPhedran	Medicine and Clinical Medicine	1,101 00	
Dr. W. Oldright	Hygiene	1,101 00	
Dr. B. Spencer	Medical Jurisprudence	1,101 00	
Dr. A. H. Wright	Obstetrics	1,101 00	
Dr. U. Ogden	Gynaecology	734 00	
Dr. J. M. MacCallum	Pharmacology and Therapeutics	734 00	
Dr. R. A. Reeve	Opthalmology, etc	440 32	
Dr. G. R. McDonagh	Laryngology, etc	440 32	
Dr. W. H. Ellis	Toxicology	366 93	
			$11,220 57

Associate Professors.

Dr. G. A. Peters	Surgery and Clinical Surgery	$ 101 00	
Dr. G. H. Burnham	Opthalmology	293 60	
Dr. H. W. Aikins	Anatomy	734 00	
Dr. W. P. Caven	Clin. Medicine	734 00	
Dr. L. M. Sweetnam	Clin. Surgery	528 20	
Dr. H. A. Bruce	do	528 20	
Dr. J. F. W. Ross	Gynaecology	264 20	
Dr. H. T. Machell	Obstetrics, etc	308 19	
Dr. W. B. Thistle	Clin. Medicine, etc	528 19	
Dr. F. N. G. Starr	Clin. Surgery, etc	396 19	
Dr. J. A. Amyot	Pathology, etc	440 19	
C. F. Heebner	Pharmacology	440 20	
			6,296 16

Lecturers.

Dr. G. Boyd	Clinical Medicine	$293 60	
Dr. R. D. Rudolph	Med. and Clin. Medicine	367 00	
Dr. R. J. Dwyer	do do	367 00	
			1,027 60

Demonstrators and Assistant Demonstrators.

Dr. F. N. G. Starr	Anatomy	$150 00	
Dr. W. J. McCollum	do	100 00	
Dr. A. A. Small	do	100 00	
Dr. W. J. O. Malloch	do	100 00	
Dr. S. H. Westman	do	100 00	
Dr. E. R. Hooper	do	100 00	
Dr. W. J. Wilson	do	100 00	
Dr. C. L. Starr	do	100 00	
Dr. A. C. Hendrick	do	50 00	
Dr. A. J. Mackenzie	do	50 00	
Dr. D. McGillivray	do	50 00	
Dr. W. Goldie	Laboratory, Bacteriology	250 00	
Dr. G. Silverthorne	Pathology, etc	100 00	
Dr. C. J. Wagner	do	100 00	
Dr. T. D. Archibald	do	50 00	
Dr. M. M. Crawford	do	50 00	
Dr. A. R. Gordon	Clinical Medicine	176 28	
Dr. G. Chambers	do	176 28	
Dr. W. McKeown	Clinical Surgery	176 28	
Dr. C. L. Starr	do	176 28	
Dr. K. C. McIlwraith	Obstetrics	176 28	
			2,431 40

General Service.

Dr. A. Primrose	Secretary to Faculty	$900 00	
Dr. J. J. Mackenzie	Assistant Secretary	100 00	
do	Curator of Museum	300 00	
Thos. Motton	Janitor and Caretaker at Medical School Building	720 00	
George Lynne	Attendant and Caretaker at Anatomical Department	660 00	
John Anderson	Additional attendant during session only (Anat. Dept.)	245 00	
Louis Meyer	Boy Messenger and attendant	200 00	
			3,125 00

Miscellaneous.

Dr. Daniel Clark	Psychology fees collected for him	$265 00	
Dr. J. H Richardson	Honorarium as retired Professor	250 00	
			515 00
Total			$24,615 73

Faculty of Applied Science and Engineering.

(School of Practical Science.)

Expenditure.

Summary.

Salaries	$25,425 00
Expenses	4,331 71
Maintenance and Repairs	5,154 02
Instruction by Arts Faculty	1,575 00
Examiners	1,054 15
	$37,539 88
Receipts from fees	$20,059 50
Showing a difference of	$17,480 38

being the excess of expenditure over receipts supplied from vote of Legislature.

DETAILS OF SALARIES.

Principals and Professors.

J. Galbraith	Principal and Prof. of Engineering	$3,000 00
W. H. Ellis	Professor of Applied Chemistry	1,500 00
A. P. Coleman	Professor of Metallurgy and Assaying	2,000 00
L. B. Stewart	Professor of Surveying	1,700 00
C. H. C. Wright	Professor of Architecture	1,800 00
T. R. Rosebrugh	Professor of Electrical Engineering	1,700 00
		$11,700 00

Lecturers.

J. A. Duff	Lecturer in Applied Mechanics	$1,300 00
G. R. Mickle	do in Mining	1,200 00
R. W. Angus	do in Mechanical Engineering	1,200 00
		$3,700 00

Demonstrators.

A. T. Laing	Demonstrator in Surveying and Assist. Secretary	$1,050 00
J. W. Bain	do in Analytical Chemistry	850 00
W. Monds	do in Mechanical Engineering (3 mos.)	75 00
		$2,075 00

Fellows and Assistants.

J. T. M. Burnside	Fellow in Civil Engineering	$500 00
M. B. Weeks	do in Mining (9 mos.)	375 00
A. H. Robinson	do in Mining (3 mos.)	125 00
A. H. Robinson	do in Chemistry (9 mos.)	375 00
E. G. R. Ardagh	do in Chemistry (3 mos.)	125 00
A. H. Harkness	do in Applied Mechanics	500 00
F. C. Smallpiece	do in Electricity (9 mos.)	375 00
W. G. Chase	do in Electricity (3 mos.)	125 00
W. Monds	do in Mechanical Engineering (9 mos.)	375 00
J. A. Craig	do in Mechanical Engineering (3 mos.)	125 00
J. A. DeCew	Lecture Assistant (3 mos.)	125 00
		$3,125 00

Attendants.

D. Sinclair	Attendant in Chemistry	$500 00
G. Lamb	do in Metallurgy	350 00
E. Tozer	do in Mining (8 mos.)	160 00
W. J. Graham	Caretaker	750 00
W. Simpson	Engineer	800 00
A. F. Mackay	Fireman (8 mos.)	320 00
W. Scott	Night Fireman (4 mos.)	180 00
		$3,060 00

ADDENDUM N—LIST OF PAPERS AND WORKS BY MEMBERS OF FACULTIES AND RESEARCH STUDENTS FOR THE YEAR 1901-1902.

Allan, F. B.: The Sulphates of Bismuth. (American Chem. Journal, Vol. XXVII, No. 4.)

Amyot, J. A.: Is the Bacillus Coli Communis a normal inhabitant of the intestines of fishes? (Report of American Public Health Association, 1901-2.)

Baker, Alfred: Correlation of the Curve of the Second Order and the Sheaf of Rays of the Second Order in Geometry of Position. (Read before the Roy. Soc. of Canada, May, 1902; Proceedings and Trans. of Roy. Soc. of Canada, 1902.)

Benson, Miss C. C.: The rate of oxidation of ferrous salts by Chromic acid. (Read before the Roy. Soc. of Canada, May, 1902; Proceedings and Trans. of Roy. Soc. of Canada, 1902. Subsequently published in Jour. Phys. Chem. VII, p. 1, 1903.)

Cameron, J. H.: The Elements of French Composition. (New York, 1901. Henry Holt & Co.)

Carson, C. M.: See under Lang, W. R.

Chant, C. A.: An experimental Investigation into the 'Skin' effect in Electrical Oscillators. (Amer. Jour. of Sc., Jan., 1902, pp. 1-19; Phil. Mag. Apr., 1902, pp 425-444.) Invisible Light. (Acta Victoriana, Jan., 1902.)

Coleman, A. P.: Iron Ranges of Northern Ontario. (Bureau of Mines of Ontario.) The Michipicoton Iron Range. (Bureau of Mines of Ontario.) Rock Basins of Helen Mine, Michipicoton. (Bulletin of the Geol. Soc. of Amer. 1902.) Duration of the Toronto Interglacial Period. (Amer. Geol. Vol. XXIX, Feb., 1902.) Nepheline and other Syenites in Ontario. (Amer. Jour. of Sc. Vol. XIV, Aug., 1902.) The Michipicoton Iron Ranges. (University of Toronto Studies, 1902.)

Faull, J. H.: The Anatomy of the Osmundaceae. (Bot. Gazette, Dec., 1901; University of Toronto Studies, 1902.)

Fields, J. C.: The Riemann-Roch Theorem, and the Independence of the Conditions of Adjointness in the case of a Curve for which the Tangents at the Multiple Points are distinct from one another. (Crelle's Journal, Berlin, Jan., 1902.) Algebraic Proofs of the Riemann-Roch Theorem and of the Independence of the Conditions of Adjointness. (Acta Mathematica, Abel Number, Stockholm.) An equivalent for Pluckers Formulae. (Read before the Chicago Section of the Amer. Math. Soc. Abstract in the Bulletin of the Amer. Math. Soc.) Forms for the Abelian Integrals of the three kinds. (Read before Section III, of the Roy. Soc. of Canada, 1902; Proceedings and Trans. of Roy. Soc. of Canada, 1902.)

Fraser, W. H.: Modern Languages Abroad. (Proceedings of Ontario Educational Association, 1901.)

Fraser, W. H., and Squair, J.: French Grammar and Reader. (D. C. Heath and Co., Boston, 1901.)

Jeffrey, E. C.: The Structure and Development of the Stem in Pteridophyta and Gymnosperms. (Phil. Trans. of the Roy. Soc. Abstract in Proceedings of Roy. Soc.)

Kenrick, F. B.: See under Miller, W.L. The following paper was prepared under the direction of Dr. Kendrick by a student of the Third year: McBain, J. W. The Oxidation of Ferrous Solutions by Free Oxygen. (Jour. Phys. Chem. V. 623, 1901.)

Kirschmann, A.: Zum Problem der Grundlagen der Tiefenwahrnehmung. (Regarding the problem of the basis of Depth-perception.) (Phil. Studien. Vol. XVIIIL.) No. I, Vol. II Psychological Series. University of Toronto Studies, containing the following papers: The conception and classification of Art from a Psychological Standpoint by Professor Oswald Kuelpe (University of Wuerzburg): Experiments on the Aesthetic of Light and Color. Second Article : Spectrally pure Colors in binary Combinations, by Emma S. Baker ; On Color Photometry and the Phenomenon of Purkinge, by R. S. Wilson; Experiments on the Function of Slit-form Pupils, by W. J. Abbott.

Lang, W. R., and Carson, C. M.: The Separation of Arsenic, Tin, and Antimony. (Jour. of the Soc. of Chem. Industry, June 16th, 1902.) Solubility of the Sulphides of Arsenic, Antimony and Tin. (Jour. of the Soc. of Chem. Industry, Aug. 15, 1902.)

Langton, H. H., and Wrong, G. M.: Review of the Historical Publications relating to Canada. (University of Toronto Studies, First Series, Vol. 6.)

Loudon, J: A Century of Progress in Acoustics. (Trans. of R. S. C., Vol. VII, 1901-02.) Address as President of the Royal Society of Canada at Toronto meeting, May 27th, 1902. (Proc. and Trans. of the Roy. Soc. of Canada, 1902.) (And in Science, N.S., Vol. XV, No. 391.) Rudolph Koenig. (University of Toronto Monthly, November, 1901.)

Macallum, A. B.: Report on the Micro-Chemistry of Cells (British Association Report 1902.) The following paper was prepared under Dr. Macallum's direction: The Chemistry of Wheat Gluten, by G. G. Nasmith. (Read before the Canadian Institute, May, 1902.)

McCurdy, J. F.: Consulting Editor "Jewish Encyclopaedia" Vol. II, 1902.

McLennan, J. C.: On a Kind of Radioactivity imparted to certain Salts by Cathode Rays. (Phil. Mag. Feb., 1902.) Ueber eine gewissen Salzen durch Kathodenstrahlen erteilte Radioactivitat. (Abstract of preceding paper.) (Phys. Zeitschrift, Sept., 1901.) The following papers were prepared under the direction of Dr. McLennan: Carr, W. R., B.A., On the Potential Difference required to produce Discharge in Gases at Low Pressures. (Trans. Roy. Soc. Canada, V. VIII, 1902-03.) Stewart, R. M., Fourth year student, Excited Radioactivity. (Trans. Roy. Soc. of Canada, V. VIII, 1902-3.)

McPhedran, A.: The Early Recognition and Treatment of Pulmonary Tuberculosis. (The Canadian Journal of Medicine and Surgery, August, 1901.) Nature and Treatment of Pernicious Anaemia. (The London Lancet, Vol. 1., 1902.) Cerebro-Spinal Meningitis. (The Canadian Journal of Medicine and Surgery, March, 1901.) The Home Treatment of Tuberculosis. (The Canada Lancet, December, 1901.) Tuberculosis and the Home. (Dominion Medical Monthly, June, 1902.)

Masson, E.: L'Etude des langues modernes consideree comme un facteur dans la civilisation. (Proc. of Annual Convention of the Ont. Educ. Ass., April, 1902.)

Miller, W. L.: Chemical and Physical Relations. (Proc. of the Convention of the Ont. Educ. Assoc., April, 1902.)

Miller, W. L., and Kenrick: The Identification of Basic Salts. (Trans. Roy. Soc. of Canada, II series 1901-02, Vol. VII, Sec. III, p. 35.) The following papers were prepared by students of the Fourth year, under the direction of Dr. Miller: Bell, J.: The Compensation Method of measuring the rate of oxidation of iodides. (Read before the Roy. Soc. of Canada, May, 1902, subsequently published in Jour. Phys. Chem. VII, Feb., 1903.) Bray, W. C. The rate of reaction in solutions containing potassium chlorate, potassium iodide and hydrochloric acid. (Read before the Roy. Soc. of Canada, May, 1902, subsequently published in Jour. Phys. Chem. VII, Feb., 1903.) Roebuck, J. R.: The rate of the reaction between arsenious acid and iodine in acid Solutions: The rate of the reverse reaction and the equilibrium between them. (Read before the Roy. Soc. of Canada, May, 1902, subsequently published in Jour. Phys. Chem. VI, 363, 1902.)

Murison, R. G.: Totemism in the Old Testament. (Biblical World, Chicago, Sept., 1901.) Babylonia and Assyria—A Sketch of their history. T. T. Clark, Edin. (In the series of Bible Class Primers edited by Prin. Salmon for the U. F. Church of Scotland.) The Mythical Serpents of Hebrew Literature. (University Press.)

Parks, W. A.: Summary Report on the region southeast of Lake Nipigon (Geological Survey of Canada. Summary Report of the Director, 1901.)

Peters, George A.: A new Wrench for use in the correction of Stubborn Deformities. (Canadian Journal of Medicine and Surgery, Dec., 1901.)

A New Method of Cutting Urinary Calculi. (Canadian Practitioner and Review, Jan., 1902.) A case of unusually large Calculus removed by Suprabubic Section. (Canadian Practitioner and Review, Jan., 1902.) (1) A Case of Dilation of the Oesophagus without intrinsic Stenosis. (2) Removal of Foreign Body from the Oesophagus. (Canada Lancet, March, 1902.) Transplantation of Ureters into the Rectum for Exstrophy of the Bladder—by the Author's Extra-Peritoneal Method. (The Canadian Journal of Medicine and Surgery, April, 1902.)

Rudolf, R. D.: A case of Primary Tracheal Diphtheria. Trans. of the Ass. of Amer. Physicians, 1902.) Kernig's Sign, its frequency, causation, and clinical value. (American Medicine, Nov. 8th, 1902.)

Squair, J.: La joie fait peur, by Madame Emile de Girardin, with Biographical Notice, Notes and Composition Exercises. (Toronto, W. J. Gage & Company, 1901.) See also under Fraser, W. H.

Tracy, F.: Fifth edition of Psychology of Childhood, revised throughout, and enlarged by the addition of a chapter on the Aesthetic, Moral, and Religious ideas in Psychic Development. Theories of Knowledge in relation to Teaching. (Proceedings of Ont. Ed. Ass., April, 1902.) Review of Schwarz, Psychologie des Willens, zur Grundlegung der Ethik. (Amer. Jour. of Theology, Oct., 1901.) Review of Mengel, Kant's Begrundung der Religion. (Amer. Jour. of Theology, Oct., 1901.) Review of Wobbermin, Theologie and Metaphysik; das Verhaltnis der Theologie zur Modernen Erkenntnistheorie und Psychologie. (Amer. Journ. of Theology, Apr., 1902.)

Wickett, S. M.: City Government in Canada. (Pol. Sci. Monthly; Canadian Magazine, published with some alterations and additions in No. 1, Municipal series, University of Toronto Studies in History and Economics.) The Municipal Government of Toronto. (Same series, University of Toronto Studies.) Bibliography of Canadian Muncipal Government. (Same Series.) Higher Commercial Education at the University of Toronto. (Proceedings of the Ontario Educational Association.) English Edition of translation of Bucher's Industrial Evolution. (George Bell & Sons.)

Wrong, G. M.: See under Langton, H. H.

BINDING SECT. AUG 2 4 1967